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A
T R E A T I S E
OF THE
P L A G U E:

CONTAINING
AN HISTORICAL JOURNAL, AND MEDICAL ACCOUNT, OF THE
PLAGUE, AT ALEPPO, IN THE YEARS 1760, 1761, AND 1762.

A L S O,
REMARKS ON QUARANTINES, LAZARETTOS, AND THE
ADMINISTRATION OF POLICE IN TIMES OF PESTILENCE.

TO WHICH IS ADDED,
A N A P P E N D I X,

CONTAINING
CASES OF THE PLAGUE; AND AN ACCOUNT OF THE WEATHER,
DURING THE PESTILENTIAL SEASON.

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VOLUME I.

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SHOULD the present work, in any degree, contribute to throw further light on the Medical History of the Plague; should it suggest more effectual means of preventing the infection being brought from foreign parts, or of hindering it from spreading, on the supposition of its invasion; but, above all, should it induce those who possess the power of correcting errors and supplying defects, to bestow some attention on the defensive measures which have been proposed, at different times, to the Legislature, and partly adopted; I should look back with satisfaction on the dangers incurred in collecting a part of my materials, and on the time employed in preparing the whole for the public eye.

The hopes of not being wholly disappointed in these expectations, have encouraged me to add one to the multitude of medical books already published on the plague; and to engage in discussions relating to quarantines, and other regulations of police adapted to circumstances of public distress, when restraints, unusually rigorous, become indispensably necessary, and the most humane exertions of the magistrate carry an appearance of adding to the accumulated calamity of the times.

Nothing, however, can be further from my intention than to disturb the public tranquillity, by raising needless apprehension of uncertain evils. Above one hundred and twenty-five years have elapsed since Britain was afflicted with the plague; and the alteration in the manner of living, as well as the improved disposition of streets and dwelling-houses, which have almost universally taken place in that interval, may be considered as circumstances unfavourable to the propagation of contagious diseases. But if a moral probability of the plague again invading the

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island be admitted, and that the most effectual provision should be made against an event of such dreadful consequence, it will scarcely be disputed that provident measures can never be so well concerted as in times of tranquillity, when there is leisure for undisturbed deliberation.

Such times have seldom, in Britain, been selected for that purpose. The subject has hardly ever been taken up by the Legislature, except under apprehension of impending danger, and when due deliberation was in a manner precluded, by the urgent necessity of immediate decision. I have been at some pains to elucidate this fact by several examples, though it must be sufficiently evident to every one who examines the progress of the quarantine laws, from the year 1710.

The following sketch, of the plan which I have attempted to execute, may serve to give the reader some idea of the work.

The first book contains an Historical Journal of the Plague at Aleppo, during three successive years; to which is prefixed a short account of the progress of the plague in Egypt, in Cyprus, and in sundry towns in Syria, previously to its reaching Aleppo. The practice of the Levant, in times of pestilence, has often been strangely misrepresented in Britain; and it being a matter of material consequence, in respect to quarantines; that the conduct of the European inhabitants of that country, as well as that of the natives, should be distinctly known, I have entered into a fuller detail on the subject, than my late Brother thought it necessary to do, in the account of the former plague at Aleppo, in his Natural History of that city.

In the second book, is given a medical account of the disease, from my own experience and observation. To which, by way of notes, are subjoined some occasional remarks on the descriptions

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scriptions of the disease, and on the practice of some former physicians, more particularly of those of Provence, in the years 1720 and 1721.

In elucidation of my description of the disease, as also of the success of the method of treating it, a considerable number of cases are given in the Appendix, to which references are frequently made, in the course of the work. The difficulties met with in keeping regular journals, and the reason of so many of these cases being presented in a much less complete state than I could have wished, are explained in their proper places.

In the narrative of the cases, matters are represented exactly as they appeared to me, at the time; and, having espoused no hypothesis, I have the less apprehension of incurring any suspicion of their being modelled, either for the purpose of serving a theory, or of claiming particular merit from the treatment pursued in the cure.

The second book concludes with a chapter on *re-infection* in the plague, and relapse. The neglect of discriminating the one from the other, has greatly conduced to perplex what has been said on the subject, by most of the authors who have fallen in my way; and I have not found stated, in any of them, the proportion of the instances of *re-infection* which they had met with in the course of their practice. Regarding this therefore to be a *defideratum* in the history of the disease, I have given my own estimate, formed upon a considerable number of infected patients, and have added some practical remarks on the difficulty of distinguishing relapse from *re-infection*, in certain cases.

The third book treats of pestilential contagion, that is, of its sensible properties, so far as they appear to have been ascertained by experience. As to the abstruse nature of the contagious miasms, and their manner of acting on the human body, with other
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theoretic matters belonging to the subject, I have passed them over intirely. Nor have I entered fully into the controversy concerning the plague being a contagious disease; thinking it better to make reference to some of the authors by whom, in my opinion, the question has been satisfactorily determined. But, previously to what I had to offer on the subject of quarantines, I judged it incumbent to advert more particularly to the arguments, against the plague being contagious, which were urged by the antagonists of Doctor Mead, in the year 1720. And, many of these arguments being principally grounded on the supposed course of the last plague at Marseilles, I have endeavoured, by a minute examination of the authentic records of that plague, to establish the infectious property of the disease, upon the very testimonies which have been produced on the other side of the question.

The pains employed to establish a fact, which, at present, is controverted by so few, may, at first sight, appear altogether superfluous. But however indisputable the fact of the plague being contagious may be deemed by modern physicians, it may be remarked, that it has been strongly opposed, as often as the subject of quarantine has fallen under the deliberation of the Legislature; and the Public, at such times, have been constantly pestered by an inundation of pamphlets which, without advancing any thing new, merely retailed arguments which had long before been refuted.

In tracing the course of the plague at Marseilles, particular attention has been paid to its decline; and, upon a comparison with what has been observed in Egypt, Syria, and in Great Britain, a remarkable similitude will be discovered in its decline, under circumstances very different. With this part of the subject is connected a material regulation respecting the expurgation of infected houses, as well as other precautions recommended in the decline of the pestilential season.

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The opinion I have adopted, that a certain constitution of the air is necessary, in concurrence with imported infection, to the propagation of the plague, may perhaps be erroneous. But, that the plague, at certain times, is introduced by means of intercourse with infected places, and that a similar intercourse, at other times, is attended by no bad consequence, I conceive to be indisputable facts, which, without supposing some concurrent alteration in the air, I find myself at a loss to account for.

It was an opinion maintained in the last century, that Britain was subject to periodical returns of the plague; and it is imputed to Sydenham, (but I think erroneously) that he asserted it was *necessarily* subject to such periodical visitations. He certainly held the opinion, that the plague was never bred in Britain, and, when brought in from other countries, that it would not spread, if not favoured by a certain constitution of the air.

The frequent return of the plague at London, in former times, supposes the return of that constitution of the air which is necessary (according to Sydenham) to the spreading of infection. But in accounting for Britain's having enjoyed so long an interval free from the plague, notwithstanding the increase of its commerce with the Levant, there is no need to suppose the British climate no longer liable to a return of that pestilential constitution of the air, which is supposed to have been incident to it formerly; the matter may more readily be accounted for, from better precautions being taken for our defence than formerly, and the providential non-concurrence of the pestilential constitution of the air, and imported infection.

The fourth book treats of Quarantines. In this, the most material objections to them, founded on the supposed impossibility of the plague being conveyed in merchandize, are stated
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and examined; and misrepresentations, respecting the precautions employed by the Europeans resident in Turkey, are corrected. In further proof of the infection being conveyed in merchandise, an account is added of the plague's introduction to Messina, in 1743.

The late Sir James Porter, in his book, entitled *Observations on the Law, Religion, &c. of the Turks*, having, in several instances, when treating of quarantine, fallen into errors, especially respecting Syria, I have shown in what he was misinformed, and have examined, with attention, what he has offered on the subject of quarantine. But, as he places great reliance on the precautions observed in Turkey, in shipping goods for England, agreeably to regulations established by the Levant Company, I have given a particular account of those regulations, and entered into a detail of the present practice in the Levant.

The next objects of consideration are Patents, or Bills of Health, which I have endeavoured to show are, in their present form, much less to be relied on than is commonly imagined. Whether the alterations suggested will meet with approbation, I know not; but I apprehend it to be beyond dispute, that alterations of some kind are become absolutely necessary.

On the supposition that the precautions practised in Turkey, afford very imperfect security against exportation of the plague, I have proposed some new regulations; but, foreseeing many obstacles to carrying such improved regulations into execution, in that country, I have ventured a decided opinion that, though precautions in Turkey ought not to be neglected, the principal defence against the plague, will be due precautions in the reception of ships, and merchandise, on their arrival in Britain.

The fifth book is employed on Lazarettos, and the Method of performing Quarantine. Previously to entering on those subjects,

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subjects, it was judged proper to discuss certain general objections to Lazarettos, in which they are represented as unnecessary; as inadequate to the purpose of their establishment; as dangerous to the public health; and highly detrimental to the commercial interests of the nation. I have collected together the strongest arguments urged in favour of these allegations, and conceive that, by those who view them in the same light in which they appear to me, the subsequent part of the fifth book will not be deemed superfluous.

The description given of a Lazaretto, is a mere sketch. The principal points are only suggested; the means of accomplishing the design are out of my province.

In describing the method of receiving ships, and of purifying their cargoes, adapted to ships under various circumstances of suspicion, I have all along endeavoured to elucidate the subject by apposite examples; and, though the decisions I have presumed to give are, in general, consonant to the practice in countries where quarantines are best understood, I am fully sensible that they will require revival, and correction, by persons more conversant in the administration of British police.

No British ship, bound for England, is permitted to depart from Turkey with a foul patent: a prohibition which should undoubtedly be continued till the establishment of regular Lazarettos. But as there is a possibility, with respect to a ship that brings a clean patent, of the plague breaking out in the course of the voyage, or while discharging her cargo, it becomes highly necessary that provision should be made for such a contingency; and, especially, that a refuge, with suitable conveniences for the instant separation of the infected from the sound, should be established for ships with the infection actually on board. Having reason to think, that no refuge, so provided, exists

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in the British dominions, I have endeavoured to place the necessity of providing one in the strongest light, and at the same time to point out the danger, to the public safety, resulting from the strong temptation to breach of quarantine, under the present regulations.

In the discussion of this subject, I have been led into a review of the Quarantine Laws, and of some subsequent orders of the Privy Council, issued occasionally in suspected times. If the freedom with which I have animadverted on both, should stand in need of apology, it will, I trust, be sought in the motives which produced the remarks. Should the remarks be found just, and happily suggest hints to those who possess the power of reformation, their intention will be accomplished.

In the present situation of public affairs, the establishment of regular Lazarettos in Britain is, probably, at a distance. Some temporary regulations are therefore proposed, to render quarantine, without a Lazaretto on shore for merchandise, of less precarious security than the methods now in use, which, with some reason, are suspected of not affording security against the plague, in any degree adequate to the heavy expence, and the needless restraints, with which they fetter commerce.

I have taken an opportunity, on this head, of inserting a Memoir on the Establishment of a Lazaretto, drawn up by my late Brother, in the year 1758, at the request of the late Lord Chatham, then Minister of State. It contains a sketch of a Lazaretto, of prattique houses, with the complement of quarantine officers, &c. Though the paper be incomplete, I thought it worth preserving.

The sixth book is allotted to such political regulations as become necessary, when the plague actually exists in a place. On this subject, volumes have been published by some eminent
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Italian writers; and many excellent precepts, respecting the police at times of such difficulty, may be found in the second part of the *Traité de la Peste, &c.* published at Paris, by order of the King, in the year 1744. I have met with few modern English authors who have treated the subject, professedly. The most eminent of those was Doctor Mead, who, in the year 1720, when the nation was alarmed by the plague at Marseilles, wrote his book at the request of Government*. Sir John Colbatch published two small Tracts†, soon after, and several other pamphlets appeared at London, about the same time. In 1745, Doctor Lobb published certain Letters on Contagion‡, which had been read at the Royal Society, but not published in the Transactions.

Though I sometimes differ in opinion from Doctor Mead, I have the pleasure to concur with him in the most material points. His censure of the methods employed, in former times, at London, for suppressing infection, I conceive to be rather indiscriminately severe. Among the regulations published, by order of the King in Council, in 1603, (of which I have given an abridged account), as well as among the orders issued in the same year, by the Mayor and Alderman, many unexceptionable articles will be found, which are worthy of revival, in case of necessity.

* A short Discourse concerning Pestilential Contagion, and the Methods to be used to prevent it. By Richard Mead, M. D. Lond. 1720.

† A Scheme for proper Methods to be taken, should it please God to visit us with the Plague. By Sir John Colbatch, Member of the College of Physicians. London, 1721.

Observations on the Scheme, lately published. By the same Author.

‡ Letters relating to the Plague, and other Contagious Distempers. By Theophilus Lobb, M. D. Lond. 1745.

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The directions proposed by Doctor Mead, gave rise to an Act of the British Parliament, which, on account of certain clauses extraordinarily rigorous, met with much opposition, and was severely condemned. Powers given to Government to remove families infected with the plague from their own habitations, and to separate the sound from the sick; or to surround infected towns with trenches and guards; whatever may be the advantages proposed to the community, will ever be unpopular, and excite jealousies: such powers therefore should be carefully limited, and clearly defined.

To the short account I have given of the parliamentary proceedings in that business, in the years 1720 and 1721, are added some remarks on the above Act of Parliament; and it is hoped, as they are made with due respect to high authority, the liberty taken will the more readily be excused.

The regulations proposed to the police, are calculated for the four different stages of the pestilential season: its beginning, increase, height, and decline. But though arranged in this formal manner, they are by no means offered as a complete set of precepts, or rules. To form such, requires the united wisdom of many persons, or, at least, appears to be a task for which few individuals are qualified. What I have attempted is little more than to suggest improvable hints, under the respective divisions; and to point out books, from which useful information on the subject may be collected.

I have, however, presumed to enforce certain precepts, which I conceived to be more particularly important. For instance, to attempt, by every means, an early discovery of the plague, while yet lurking in a place; and, when once ascertained, to declare it immediately, instead of deceiving the public by false representations. To have immediate recourse to precautions for the public safety, permitting neither the discordant
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opinions of physicians, nor the delusive hopes of the contagion not spreading, to encourage procrastination. To shut up the churches, and great hospitals, at an early period; and to establish public repositories for lending money on pledges. To all these, as well as to some of the other regulations, objections may possibly be started, which have not occurred to me. Far from being obstinately tenacious of my own opinions, however deliberately adopted, I should rejoice to see more effectual regulations established, than those I have proposed, which are mostly selected from the practice of foreign countries, and from that of England in former times.

The indiscriminate removal of infected families, and the immediate separation of the sound from the infected, by the interposition of the magistrate, are, of all regulations, the most liable to objection, and the most likely to meet with disapprobation. The influence of administration, the high reputation of Mead, and the recent alarm from the plague in France, were hardly able, even conjointly, to stem the torrent of opposition, which these regulations encountered in 1720.

With such an example in view, I should not have ventured to revive the subject in these times, had it not been from a persuasion of the expediency of the measures proposed, and of their being capable of such modification, and explanation, as would naturally present themselves, in a deliberate and impartial discussion, in the Senate; if undertaken at a time free from all apprehension of immediate danger.

There is one precept of which I dare venture to speak with some confidence, from my own experience. It regards those who, having no retreat in the country, are under the necessity of remaining in town during the time of a plague. All such, whose situations can possibly admit of it, should, early in the season, make proper pre-

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provision of necessaries, and shut themselves up in their houses, after the manner of the Levant *. Of the success of this expedient in Syria, as well as in several cities of Europe, many instances are given in the following work. To these I have added a caution intended for persons thus shut up, who, alarmed by the increasing devastation in the height of the plague, might be tempted to fly elsewhere for protection; being fully persuaded that, at a period when the disease has spread so generally, flight is attended with more danger of infection, than remaining shut up in town: on the supposition always, that the rules of confinement are strictly observed.

To the regulations belonging to the province of police, is added a chapter on such medical directions as are usually published at the requisition of Government, in times of the plague. In this, I have taken the liberty to hint the propriety of a revival of the directions published in the last century, by the College of Physicians of London, in which some reformation appears to be highly requisite, as well in regard to the advantage of the public, as to the reputation of the College.

On the subject of fumigation, a practice which Doctor Mead seems to have too hastily depreciated, I have entered more at large; but having little to offer from my own experience, authorities are produced which, to me, appear fully sufficient to remove prepossessions against fumigation, and to encourage future trials. The method of purifying houses by smoke, is particularly described, and a list given of the principal ingredients used for that purpose.

A few remarks are made on internal and external preservatives against the plague, of which a copious collection is to be found

* The method of shutting up, is particularly described in Russell's Natural History of Aleppo.

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in books. I wish I had been able to give more satisfactory information concerning the use of fontanels, and tobacco, both which have been strongly recommended as preservatives; and I sincerely regret that experience has not put it more in my power to propose better instructions for persons who, by their duty, are obliged to approach the infected.

After the sketch of the plan, now given, it may perhaps be proper to say something of the arrangement, and style. In regard to the former, it may be suggested in extenuation of faults, that the work was chiefly composed in a foreign country, distant from the literary friends, who might have advised and corrected. In regard to the latter, it might justly be deemed arrogance, in a man who, through a great part of life, has been compelled, by his situation in Turkey, to the practice of languages very different in idiom from his own, to pretend to exemplary pureness, or elegance in writing. In arrangement, it was my aim, to avoid confusion; in style, to avoid affectation and solecisms. A respect which, I think, every voluntary writer owes to the public, led me to exert my best endeavours to attain the points in view; but, whatever may have been the labour bestowed on this performance, I am sincerely conscious that much still remains for the indulgence of candour, and for the correction of liberal criticism.

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ERRATA. English.

Page 8, line 6, or, *read* and. P. 10, l. 31, capucine, *r.* capuchine. P. 12, line 16 & alibi, carmalite, *r.* carmelite. P. 15, l. 1, enterval, *r.* interval. P. 18, l. 5, christians *r.* christian. P. 25, l. 9, prebable, *r.* probable. P. 29, l. 14, spight, *r.* spite. P. 36, l. 2, road, *r.* rode. P. 42, l. 3, to, *r.* by. P. 43, l. 4, termination, *r.* termination. P. 49, l. 17, ordnance, *r.* ordinance. P. 59, l. 26, indeed, *r.* induced. P. 65, l. 6, admonitory, *r.* admonitory. P. 69, margin, byals, *r.* byafs. P. 72, ultim. loemog. *r.* loimolog. P. 74, l. 14, presents, *r.* present. P. 78, l. 17, determination, *r.* termination. P. 79, l. 17, that, *r.* in that. P. 81, penult. café 150, *r.* 101. P. 82, l. 29, intellects, *r.* intellect. P. 90, l. 1, affect, *r.* effect. P. 92, l. 15, & alibi, reaching, *r.* retching. P. 93, l. 7, they effected, *r.* as it affected. P. 96, l. 13, & alibi, proecordia, *r.* præcordia. P. 105, l. 18, phœnom. *r.* phænôm. P. 110, l. 21, & alibi, run, *r.* ran. P. 121, l. 27, femenis, *r.* feminis. l. 31, crustafum. *r.* crustofumque. P. 122, l. 4, cuticils, *r.* cuticle. P. 128, l. ultim. extravac, *r.* extravasated. P. 129, l. 20, & alibi, putrifaction, *r.* putrefaction; ebullition, *r.* ebullition. P. 134, l. 16, reddish circle, *r.* purplish circle. P. 135, ult. diffusam, *r.* diffusum. P. 145, l. 9, borne, *r.* born. P. 146, penult. & alibi, Senertus, *r.* Sennertus. P. 148, l. 22, girl, café iv. *r.* café v. P. 152, l. 14, symptomic, *r.* symptomatic. P. 155, l. 26 & alibi, dispensary, *r.* dispensatory. P. 161, l. 7 & alibi, accidulated, *r.* acidulated; l. 17, effect, *r.* affect. P. 162, l. 4, coluvies, *r.* colluvies. P. 166, l. 1, & alibi, emolient, *r.* emollient. P. 173, l. 8, dilitation, *r.* dilatation. P. 176, l. 15, provence, *r.* province. P. 181, l. 28, τῶ *r.* τῷ. ant. pen. prelecciones *r.* prælectiones. P. 190, ultim. after café 113, *r.* c. 114; and for second c. 113, *r.* c. 118. P. 193, l. 5, vomitting, *r.* vomiting. P. 203, ultim. Sweiton, *r.* Swicten. P. 206, l. 30, norelog. *r.* nosologia. P. 214, l. 14, references, *r.* inferences. P. 217, l. 27, A. M. Pons, *r.* M. Pons. P. 350, ant. pen. a Doctor, *r.* Doctor Pringle formerly mentioned. P. 358, l. 28, fuch, *r.* strict.

ERRATA. French and Italian.

Page 84, line 23, s'teignent, *read* s'eteignent; l. 35, forblefies, *r.* foiblefies. P. 121, l. 16, point noir, *r.* pointe noire. P. 122, l. 22, erysipelatoux, *r.* erysipalateux. P. 127, l. 29, charbonneuse, *r.* charbonneufes. P. 136, l. 22, de, *r.* du. P. 168, l. 22, Chicoyneaux, *dele* x; l. 25, pratlque, *r.* pratique. P. 169, l. 30, medecines, *r.* medecins. P. 170, l. 9, moins, *r.* moyens. P. 175, l. 17 & 19, les, *r.* le; l. 29, provence, *r.* province. P. 176, l. 22, emporté, *r.* importer; l. 7, efcare, *r.* efcarre; l. 25, progrès, *r.* progres. P. 177, l. 21, Goffier, *r.* Gofier. P. 183, l. 20, Agostiano, *r.* Agostiniano; l. 23, risinati, *r.* risanati; l. 32, gueries, *r.* gueris. P. 184, l. 30, une, *r.* un; autre, *r.* autres. P. 185, l. 23, terminoi, *r.* terminoient. P. 186, ultim. qu'paravant, *r.* qu'auparavant. P. 188, l. 28, pestilentielle, *r.* pestilentiels. P. 189, l. 27, brifer, *r.* brisé. P. 195, l. 26, il y à, *r.* il à. P. 200, l. 11, ce communiquer, *r.* se communiquer. P. 237, l. 33, fujets, *r.* fujets. P. 240, l. 21, infetta, *r.* infettata. P. 259, l. 17, celibrono, *r.* celibrorno. P. 262, l. 14, ovverro, *r.* ovvero. P. 366, l. 27, H, *r.* il. P. 380, penult. commenc, *r.* commencé. P. 424, l. 18, e la ragione, *r.* le ragioni. P. 494, l. 20, espurgazione, *r.* espurgazioni. P. 512, l. 28, remedio, *r.* rimedio. P. 540, penult. de, *r.* di. P. 541, l. 29, le, de, *r.* li, di. P. 549, ult. du, *r.* di. P. 568, l. 29, deilla, *r.* della.

ERRATA. Appendix.

Page 1, line 3, in the, *read* of the.

N. B. In all the cases, the dies mensis, are expressed by letters,
at length; the dies morbi, by figures.

P. 3, l. 13, 3d day, *r.* 4th day. P. 11, l. 29 & alibi, run, *r.* ran.

A
T R E A T I S E
O F T H E
P L A G U E.

B O O K I.

An Historical Journal of the Plague at ALEPPO, Anno
1760, 1761, and 1762.

C H A P. I.

A summary Account of the Plague in Egypt.

BEFORE entering on the Historical Journal of the Plague at Aleppo, I shall give a short sketch of the progress of the distemper in sundry places, previously to its reaching that city.

In the beginning of the year 1759, the plague prevailed at Constantinople, in several of the islands of the Archipelago, and in some of the towns on the coast of Asia Minor.

In the month of January of that year, a merchant ship from Constantinople arrived at Alexandria, which had lost several persons in the plague, in the course of the voyage; and, as soon as

B

she

BOOK I. he came into port, some others, ill of the same distemper, were
 { I. put on shore.

1759.

Egypt.

In this manner, as it was believed, the plague, imported into Egypt, was soon communicated to Rosetta and Damietta; as also to several of the villages on the road to Grand Cairo, which city began to be alarmed towards the end of February. The Europeans, in Cairo, shut up the 28th and 29th of March; and remained in confinement much longer than usual: for they did not come abroad till the middle of July.¹

The plague broke out again at Grand Cairo, in the month of February of the following year; and spread so fast that the Europeans shut up the 9th of March. But the native Christian Merchants remained abroad till the end of the month. The confinement ended, this season, about the 24th of June.

The mortality, in both years, was very considerable; though the account was certainly exaggerated, which made it, in the first year, amount, in Cairo, to upwards of three hundred thousand; and, in the latter year to half that number.²

¹ It is asserted by Prosper Alpinus, that the plague constantly ceases at Cairo in the month of June; and that household furniture, or other infected goods, as soon as the sun enters Cancer, lose all power of communicating the infection.

The same notion still subsists at Cairo, as to the period of the plague's termination; and I have been assured, by persons long resident in Egypt, that the year 1759 afforded the only instance, in the present century, of the Europeans having remained shut up after St. John's day. But it may be proper, at this place, to remark, that the Europeans in the Levant, as they never shut up immediately on the first appearance of the plague; so neither do they ever remain in confinement 'till the distemper has absolutely ceased. The real termination, therefore, of the plague cannot be ascertained from the practice of the Europeans, in this respect. All that can be concluded from their coming out from confinement, is only that the plague was very considerably diminished. See Book III. C. 5.

² Computations of this kind, are at best, in those countries, very inaccurate; and, I believe, there is little doubt, that the number of inhabitants in Cairo, has, in general

C H A P II.

Account of the Plague in Cyprus.

THE plague was brought to Cyprus in the month of April 1759, and its progress in that island, having been attended by some remarkable circumstances, I shall here give the following extract from an account that now lies before me; on the fidelity and accuracy of which, I can venture to depend.

1759.
Cyprus.

In the month of April, 1759, a large Turkish vessel, laden at Alexandria, and bound for Constantinople, was wrecked in her passage, not far from Cape Baffo.¹ Of the crew who were saved, a great part happened to be infected with the plague; which was first communicated to certain villages on the road to Limsol, and afterwards to that town itself.²

neral, been reckoned much greater than it really is. I have set down however, the account as received from my correspondent in Egypt, without presuming to alter it.

In the year 1736, Egypt had been afflicted with a plague still more terrible, in which 10,000 were said to have perished at Cairo in one Day. The mortality here, was, without doubt, exaggerated greatly, though it must have been uncommonly dreadful; for the Europeans shut up the 9th of February, and were confined till the 24th of June. This plague was the only one that happened in this century, which was believed by the people of Cairo, to have been brought from upper Egypt. The others were always thought to have been imported from Constantinople, or Candia; but never from Syria, or Barbary.

¹ This Cape, on the west end of the island, is distant from Limsol, about 16 leagues.

² “ Limsol is situated on the south side of the island, forty miles distant from Larnica. It is, though not rich, a very pleasant place, accommodated with an exceeding good bay for ships. It has a wretched castle, and some small share of trade; yet this small share is greater than all that of the other sea ports, except Larnica; which, being the residence of the Europeans, carries all before it.”

BOOK I. Some of the sailors died in the villages. The rest, after a short stay at Limsol, proceeded to Larnica;³ where they remained only a few days, 'till a vessel presented, in which they crossed over to Syria. None of them died in Larnica; though it was known that several actually had the plague.

1759.
Cyprus.

The contagion spread with such rapidity at Limsol, that, in the month of June, upwards of four hundred persons were reckoned to have died of it. Many of the inhabitants fled to the neighbouring villages, and to the mountains, transporting the contagion along with them. But though the plague showed itself, now and then, in those parts where the fugitives had taken shelter, as well as in other inland villages which had intercourse with Limsol; yet it was only about Baffo, and near to Limsol, that it spread considerably.

The condition of Larnica, at this period, was remarkable. It had received part of the infected crew from Limsol; it had maintained a constant intercourse with the infected quarters of the island; peasants and mule-drivers from those parts, with the pestilential sores on their bodies, were daily in the streets and markets; and some of them died in the houses of Larnica. On the 22d of May, a vessel arrived from Damietta, which put on shore some infected passengers and sailors, who lodged in the houses, and communicated freely with the natives. Another Turkish vessel, from the same place, arrived, some time after, with infected persons on board; one of which, died on landing at the Marine. Notwithstanding this new importation, none of the inhabitants of Larnica were known to have contracted the plague. The Europeans, from whom many of the above circumstances were, at the time, carefully kept secret, observed no pre-

³ "Larnica, called, by way of eminence, Cyprus, is pleasantly situated at the distance of a short mile from a spacious bay, close on which stands Salines, the sea port of Larnica; and, by the Europeans, commonly called the Marine."

Drummond's Travels. Litt. VIII.

cautions for their own safety; while the natives consoled themselves with a traditionary notion, that a plague which did not begin in December, was not to be dreaded.

CHAP
II.

1759.

Cyprus.

During the hot months of July, August, and September, little was heard of the plague; and it was generally supposed to be extinguished at Limsol as well as in the villages; but, the truth was, it had all along continued lurking in those parts, showing itself only by starts; particularly at Baffo, Piscopi, and other villages on the western and southern sides of the island.

In the month of October, the plague increased in those parts, where it had appeared in the Spring; and, soon after, broke out at Nicosia;⁴ to which place, the annual Fair of St. Demetrio had drawn a great concourse of people from most parts of the island. The magistrates of Nicosia endeavoured, at first, to conceal the nature of the distemper, under the name of a malignant fever; and, in December, when eight or ten died daily, the dead bodies were buried privately in the night, in order to prevent the inhabitants being alarmed by frequent funerals. But, towards the end of the year, matters became too serious for stratagems of this kind; for the contagion, which had, some time before, got among the Greeks and Armenians, was now arrived at such a height, as, on some days to carry off fifteen Christians; which people, in number, bear a small proportion to the Mohammedans.

The Europeans at Larnica, deceived for some time by false accounts from Nicosia, continued to walk about without apprehension; and, even when better informed, by letters from the Terra

⁴ “Nicosia, the capital of Cyprus, stands about 25 miles to the northward of Larnica. This city is round; and may be about three miles in circumference; but not well inhabited; a circumstance to which it owes its very beautiful appearance: for this want of people affords room for a great number of gardens, planted with orange, lemon, and cyprus trees, &c. which exhibit a most delightful variety, to the eye of one who walks upon the ramparts.”

Drummond.

BOOK 1. Santa convent, about the beginning of January, which clearly asserted the nature of the malady reigning in the Capital, and which carried off between forty and fifty persons daily, they still were inclined to doubt the intelligence, and to indulge ill-grounded hope: neglecting those precautions, which, however salutary, must in some measure bring all commercial affairs to a stop.

1759.
Cyprus.

1760. Towards the end of January, the plague advanced so dreadfully at Nicofia, that the Mohammedans enjoined public processions and supplications: an expedient, which, by bringing together a promiscuous croud of people, served only to propagate the contagion more effectually. The Europeans at Larnica, now, caught the alarm; for the fugitives from Nicofia, exaggerating the scenes of calamity from which they had fled, spread terror wherever they came.

Feb. In the beginning of February, the distemper appeared among the Turks at the Marine; and, soon after, at Larnica. The Europeans shut up. The daily burials, soon increased to eight or ten; and during February, never exceeded twenty. In the month of March, the disease would appear to have been more malignant than at first; for few or none of the infected recovered. The daily funerals arose to twenty-five, and thirty; and many of the inhabitants fled to the mountains.

The distemper continued to rage at Larnica all the month of April; and spread, at the same time, over the island; penetrating even into the province of Carpafs;⁵ a circumstance not known to have ever happened before. At the Marine, the daily burials decreased; which was attributed to the flight of the wretched inhabitants; many of whom, like those of Larnica, abandoned their half desolate houses, and sought refuge in the country.

⁵ Carpafs lies near the promontory of that name, in the narrow and eastern extremity of the island.

In this month also died several of the Europeans at Larnica. In the family of the Neapolitan Consul, a French gentleman, who lodged in the house; two children; the Consul himself, and several servants; all died successively. The widow of a Neapolitan, who had lost her husband in the plague sometime before, gave constant attendance on the Consul, as well as the others infected of that family, without any bad consequence. M. Lesebure, a French surgeon, who had been established many years at Cyprus, died about this time. He had caught the infection in the course of his attendance on a sick person; but could not be persuaded that he himself had got the plague, 'till a few hours before his death, when the buboes appeared. This gentleman was carefully attended by his partner, by a priest, and by two servants. Of which, the priest only was infected; and he died within a few days after. The above instances may serve as an answer to an assertion, boldly hazarded and often repeated, that Europeans, in Turkey, are insusceptible of the plague.

CHAP.
II.

1760.

Cyprus.

April.

Among instances of persons escaping infection, in situations of most dangerous exposure, there were two singularly remarkable. The one, a young Greek, whose constant occupation was to nurse the sick, and assist the buriers of the dead. The other, a Grecian woman, exceedingly corpulent; who having affectionately nursed her husband, during his illness, and two of her daughters, who both died of the plague, continued afterwards to expose herself with uncommon courage, in the assistance of all the sick in her neighbourhood.

In the month of May, died the son-in-law of the Neapolitan Consul, and some other Europeans; among whom was the Superior of the Terra Santa convent. As this convent had shut up at the same time with the European merchants, and was supposed to have rigorously observed all the usual precautions; when the Superior was taken ill, the other fathers, having no suspicion the disorder could be the plague, communicated freely with him at the beginning

BOOK I. ginning of his sickness. When the certain marks of the plague
were discovered; the fathers were much frightened; but, all of
1760. them escaped the infection.

Cyprus.

While Larnica and Famagusta suffered severely from the plague, it was decreasing fast at Nicosia; in which city, it was computed, there had died near twenty thousand Turks, and between four or five thousand Greeks and Armenians: a vast mortality! in proportion to its population.

June.

Towards the end of May, the plague was, sensibly, on the decline at Larnica, as well as most parts of the island. It had almost ceased at Famagusta, after having in a manner desolated the city; and, in the adjacent country, hardly left hands sufficient to gather in the harvest. In June, pestilential accidents continued to happen from time to time at Larnica; but the sick, in general, recovered. The heat of the weather was, now, considerably increased; though, sometimes, interrupted by cool showery days, on which persons sick in the plague, were observed to suffer remarkably.

Te Deum was sung by the French on the 3d of July. In the course of that month, all the Europeans came out from confinement and the island was, at length, delivered from the plague; which, if the computation generally received was true, had destroyed seventy thousand of the inhabitants.⁶

⁶ “The number of Turks in the kingdom of Cyprus, may amount to one hundred and fifty thousand: and, that of the Christians to fifty thousand; I mean Greeks who are subjects of the Grand Signior; for as to the Europeans who live at Larnica, or Salines, and no where else, they do not amount to one hundred.

“The greatest part of the inhabitants live at Nicosia, Larnica, Famagusta, Carpaffo, Baffo, Cerigna, Limfol, and Salines. But I cannot learn the particular number inhabiting each of these places: for they do not know how to make any tolerable exact estimate, nor do they give themselves any trouble about the matter. In the villages, there are about four thousand Turks, who pay contribution; and, of the Greek subjects, about twelve thousand. So that these last constitute, by far, the greatest part of the labourers in this country.” *Drummond's Travels. Lett. VII.*

C H A P. III.

CHAP.
III.

Progress of the Plague in different Places of Syria, before its invading Aleppo.

THE winter of the year 1756 had been most uncommonly severe, not only in Syria, but likewise in Mesopotamia, and Asia Minor. At Aleppo the cold was excessive beyond what had been ever known;¹ a great part of the olive plantations, in the adjacent country, as well as a number of Cyprus trees, were utterly destroyed.

Through the summer of the year 1757 grain of every kind bore a very high price, and as the winter approached, became scarcer and dearer; insomuch, that from the month of December in that year, till the following June, most parts of Syria and Mesopotamia might be said to have suffered all the miseries of extreme famine. In the month of February, 1758, a malignant petechial fever made its appearance at Aleppo, and advancing rapidly with the spring, raged throughout the summer and part of the autumn. This fever reigned with influence not less extensive than the famine, and both together produced every where a mortality little inferior to that of the true plague.

Syria,
1758.

Syria had scarcely begun to recover from those calamities, when she was afresh alarmed with repeated shocks of earthquakes, and by reports of the plague having been imported from Egypt.

On the 30th of October, 1759, part of the city of Damascus was laid in ruins by an earthquake, which did considerable damage

C

also

¹ The mercury in Fahrenheit's thermometer, within doors, fell to 14. In the open air it was observed more than once during an hour or two, in the morning, to sink so low as to within 2 or 1 of 0.

BOOK I. also to several of the neighbouring villages, as well as to the maritime towns, Acri and Sidon. The same shock had been felt at Tripoly, Antioch, and Aleppo; but those towns suffered more from a second shock on the 25th of November: from which period, till the end of the year, lighter earthquakes continued to be felt over all Syria.²

Saffat. 1759. Among the villages which had suffered remarkably from the earthquake of October, was Saffat; a great part of the houses having been overthrown, and several of the inhabitants buried in the ruins. Early in November, intelligence was received at Tripoly, of the plague having made its appearance in that unfortunate village, and was, by some, considered as a consequence of the preceding earthquake: but it appeared afterwards, that the plague had shown itself at Saffat before the 30th of October, and had been brought thither by some infected Jews, who came from Alexandria. This discovery proved consolatory to the people of Tripoly, who entertained a traditional opinion that the plague thus transported from Egypt, was much less to be dreaded than when it came from the northward by the way of Aleppo.

The intelligence from Saffat was soon followed by letters from some of the French gentlemen at Sidon, which mentioned the plague's having begun to show itself there, as well as at Acri; in both which cities it increased considerably in the subsequent months.

Tripoly. 1759. Immediately after the earthquake of November, the French factory at Tripoly had abandoned the city, and encamped in the neighbourhood. In this situation, the Consul was informed, about the 10th of December, that two persons had died of an illness attended with very suspicious symptoms, in a house adjoining to the Capucine convent in town; and a few days after, a Jesuit, who practised

² I transmitted an account of those earthquakes to England, which was afterwards published in the *Philosophical Transactions*, Vol. 21st. P. 2. p. 259, &c.

practised medicine at Tripoly, declaring he had seen a man who was certainly infected with the true plague, the Consul thought proper to send the national Surgeon to inquire into the circumstances of the case. The Surgeon, upon visiting the patient, differed in opinion from the Jesuit, declaring the distemper was not the plague; and no other accident being heard of by the Europeans, for twenty days after, it was generally believed the Jesuit had mistaken the case.

CHAP.
III.

1759.
Tripoly.

On the 10th of January, a messenger from Sidon arrived at Tripoly with letters for the French factory. The man was dangerously ill when he landed, and being visited by the French Surgeon, a bubo was discovered in the arm-pit; he died within forty hours after coming on shore. The letters underwent the usual purification.

Through the remainder of January, and the greater part of the month following, though accidents in the city were heard of from time to time, they were so rare, that people in general entertained strong hopes of the contagion making no great progress. About the end of February, the Bashaw of Sidon came to Tripoly, where he remained for a few days. The plague was immediately discovered among his retinue at the palace, and accidents soon becoming frequent in other parts of the city, the Europeans began to make preparations for the entering into confinement; but did not shut up till the end of March.

1760.

The plague spread rapidly in April; it continued in a considerable degree during May and June; through July it declined; and disappeared towards the end of the succeeding month. The Europeans sometimes ventured to go abroad from the 10th of August, but did not properly open their houses till twelve days later.

Near one half of the infected were said to have recovered; and the number of the dead were reckoned to amount to five thousand; but this estimate may be suspected to have been exaggerated.

BOOK 1. During the year 1761, Tripoly remained free from all suspicion of the plague. Early in the following year, alarming accounts were received of its having broke out in several villages in the neighbourhood, and particularly at Tortosa. None of those villages had, it seems, been visited in the year 1760, which was urged as a reason why Tripoly, which had already suffered should escape. The alarm, however, subsisted for some time, and was heightened by the frequent arrival of fugitive families from Aleppo, who, according to the custom of the East, had brought their bedding along with them. Although, in some of those families, there were persons actually in the plague, no instance was known where the contagion was communicated to the natives of Tripoly.

About the beginning of April in this year, the French Pro-Consul was informed by the Jesuit that he had then a female patient in the plague, under his care. Some time after, a young girl, near the convent of the Carmalites, being attacked with a violent head-ach and vomiting; a small bubo appeared in the arm-pit. The French Surgeon again differed from the Jesuit in respect to this case, affirming the disease was not the plague. The girl recovered in a few days, and no other instances of the same kind were heard of within the city; but, at the Marine, some infants and children, to the number of thirty or forty, were attacked much in the same manner: of which four or five died. The natives, in general, joined with the Jesuit in declaring the disease to be the plague: the French Surgeon all along maintained the contrary opinion. The alarming condition of Aleppo, at that time, contributed, in all probability, to incline the Europeans, at Tripoly, to think the Jesuit in the right; so that most of them shut up in the beginning of May, and remained in confinement till the first of June. From that time, Tripoly appears to have remained undisturbed by any rumours of pestilential accidents.

Latakea. The plague discovered itself at Latakea about the middle of March, 1760. Two children, in the same house, died within a day of

of one another, and were supposed to have caught the infection of a messenger who had come from Acri. These accidents were not publicly known till several days after; for the Father, whose office as Sheh or Head of the messengers, led him often to the European houses, aware of the consequence of the discovery, did all that lay in his power to conceal these accidents. The next accident that reached the knowledge of the Europeans was that of a Greek washer-woman employed by the sailors belonging to the Cypriote boats, who, about the end of the month, died also of the plague.

CHAP.
III.1762
Latakea.

The distemper had increased so much in different parts of the town, by the 10th of April, that the English Consul prohibited his servants from going out of the house, and had recourse himself to proper precautions in his communication with the natives. The daily funerals amounted to six or seven; and the French shut up: but the other Europeans did not shut up till the 17th.

The plague increased gradually from the 17th of April to the 13th of May; from which time, till the 5th of June, it raged with great violence; it then declined visibly, though not regularly, till the 27th: after which the decrease of the mortality was remarkably sudden; the funerals falling from twenty to nine; and though on the 4th and 5th of July the funerals rose again to above twenty, they immediately fell under six.

The Europeans ventured abroad in the latter fortnight of July, but did not lay aside all precaution before the first of August. The funerals at that time were reduced to one a day, and after the 5th of the month, no accidents were known to happen at Latakea; but the plague still continued in the villages in the adjacent mountains.

There were very few families in the town, who had not had the distemper in the house; and it was reckoned that on the whole, nearly as many of the infected recovered as died. The mortality amounted

BOOK

I.

amounted to about four thousand, including five hundred Christians, and fifty Jews. The natives reckoned between five and six thousand to have died: but the first estimate was in all probability nearest the truth; for the place but a little while before had been greatly depopulated by emigrations produced by the tyranny of a Governor rapacious in an extraordinary degree.

1760.
Jerusalem and
Damascus.

Jerusalem received the contagion some time in January or February, and about the beginning of March it reached Damascus: in both which places, as well as in the smaller towns and villages of Palestine, it made dreadful havock through the subsequent months. The course of the distemper was nearly the same as at Tripoly and Latakea: but I dare not venture a particular detail; the accounts I collected from those parts having been chiefly from the natives, and therefore, though perhaps true in general, not sufficiently accurate. The mortality was, no doubt, exaggerated by common report, but it certainly was in most places considerable, more especially at Damascus.³

C H A P. IV.

Historical Journal of the Plague at Aleppo, Anno 1760.

Aleppo.

WHILE the plague was spreading terror and desolation over Damascus, and the maritime towns of Palestine and Syria, Aleppo had little reason to flatter itself with hopes of remaining exempt from the common calamity. That city which would appear to be

³ By the end of May, according to my intelligence, no less than nineteen Friars of the Terra Santa convents had died out of twenty-one who had been infected at Jerusalem, Damascus, and other places in that neighbourhood.

subject

subject to periodical visits from the plague,⁴ had enjoyed an interval unusually long. The seasons for some time before, had been observed to deviate from their usual regularity, while an extensive commerce with infected places, and a total inattention to the means of preservation, set open many channels for the reception of the distemper. It may be added, that the present period had been preceded by famine, by uncommon diseases, and by earthquakes; a comet had been observed in the spring of the year 1759; and in the present year an eclipse of the sun; all which portentous events have ever, in the East, been considered as forerunners of a pestilence.

CHAP.
IV.
}1760.
Aleppo.

But neither common sense, nor credulous superstition, operated as might have been expected; the people of Aleppo were neither properly alarmed nor excessively terrified; for while those of better understanding, from an aversion to think at all on an unpleasing subject, submitted indolently to delusion; the populace were employed in detecting the absence of other prognostics, without which, it seems little was to be apprehended from the contagion. They remarked that no desertion of birds had been hitherto observed, nor mortality among the cattle; that the frogs were not less vociferous, nor swarms of insects more numerous than in other years: whence consolatory hopes were encouraged, and the reports of the plague's approach were for a long time disregarded.

It is worth remarking, that although pestilential accidents had happened at Saffat in October, and, soon after, at Sidon and Acri, yet no account of them reached Aleppo sooner than the month of February, and even then the reports were so vague and contradictory, that they obtained little credit till the month of April; when certain intelligence was received of the French gentlemen being shut up at Tripoly, and of the plague having got to Damascus.

⁴ Natural History of Aleppo.

BOOK

I.

1760.

Aleppo,

May.

About the beginning of May, Caravans arrived at Aleppo from Jerufalem, Damafcus, and Latakea. As they came from places where the plague was then raging, and feveral of the perfons belonging to them were faid to be actually infected, the public apprehenfion was fomewhat alarmed. It was afferted at the fame time that feveral perfons lately arrived, lay infected in different parts of the town; but thefe reports were ftrenuoufly contradicted.

Three Turkish merchants, who had come in the Damafcus Caravan, were lodged at a public Khane near the British confulary houfe, and after a ftay of a few days, they fet out from Aleppo on the 16th of May. Next day the porter of the Khane (an Armenian) together with his fon, were taken fuddenly ill. The fon died on the 19th; and the brother of the porter was taken ill in the fame manner as the others. Thefe men had been employed in attendance on the Turkish ftangers, and had affifted in moving and packing their baggage; but none of the ftangers appeared to be fick. Nothing was heard of thofe accidents till after the death of the fon, and they were then faid to have been produced by fome victuals which had remained too long in a copper veffel, given to the Armenians by the Aga of the Khane at the Turkish feaft. It was the morning of the 21ft before I was diftinctly informed of this, and then determined to vifit the fick.

Upon going to the Khane, I found both the fick perfons lying in the fame chamber.⁵ From the whole of their appearance, there was little room left for doubt, as to the nature of their diftemper, although their attendant affirmed confidently, that he had not been able to difcover fwellings of any kind upon fearching them. In the mean while, this was a material circumftance to be afcertained, and as I had already more than once touched the pulfes of the fick, it feemed to be worth while to risk a little more in order to be fatified with refpect to the eruptions. I therefore

⁵ For a defcription of the condition of thofe men, fee *Appendix, Cafe I. and II.*

prevailed

prevailed with the attendant to search the porter once more, while I undertook, myself, to search the brother. I examined the right axilla and both groins without meeting any tumours, and was about desisting, when a small hard swelling was discovered in the left axilla. The suspicions raised by the other symptoms, were now strongly confirmed; but being aware of the consequence of a declaration publicly of the distemper, and having never before seen an instance of the plague, I declined giving an opinion till next day, when probably some alteration in the tumour would remove all further doubt. This accordingly happened, for in the evening of the day following I found the tumour, which the attendants would fain have persuaded me was entirely gone, considerably enlarged.

CHAP.
IV.

1760.

Aleppo.

May.

The porter died in the night of the 22d, and his brother the night following. Of four Armenians who, by turns attended the sick, not one caught the infection.

The situation of the Khane, in the center almost of the houses of the Europeans, prevented those accidents from being concealed, as they probably would have been, had they happened in a more remote quarter of the city. The cafes were allowed to be extraordinary, but were accounted for in the manner already mentioned, which appeared the more probable, as the distemper had been communicated to none of the attendants, and no pestilential accident in any other part of the town was heard of till several days after.

During this calm, I had the mortification to lye under the popular censure for the having too rashly decided on a matter of which I could have no pretensions, at least from experience, to be a competent judge. But having at first given due information to the Europeans, and having no remaining doubt of the nature of the distemper, instead of attempting to justify myself from the imputation of ignorance, I chose rather to submit in silence to what

D

has

BOOK has been the common lot of those, who, on similar occasions,
 I. have ventured to disturb the public tranquillity.

1760.

Aleppo.

May.

Towards the end of May, arrived several caravans from Jerusalem and Damascus, in which were infected persons. The caravans consisted of Christians and Turkish Pilgrims on their return to the northward, and being, under various pretexts, refused admittance to the city, they encamped without the walls, and buried several persons during their stay; but several individuals found private lodgings in the town, and some natives of Aleppo, who came in the same caravan, returned to their houses with buboes still open; for though the caravan, destined for another place, might be refused admittance, natives, nor indeed individuals in whatever condition, could not be excluded the city. Notwithstanding this dangerous importation, not more than six pestilential accidents came to my knowledge, from the 23d till the end of May, that is, within the city; but several happened in the suburbs, and accidents became every where more frequent in June.

June.

About the beginning of that month came a caravan from Tripoly, in which were several infected; and, on the 8th and 9th, several more infected strangers arrived from different parts; but this not being generally known, the public continued to be deluded by confident assertions that such as had really died of the plague in town, were strangers from abroad, who had brought the infection along with them; that the inhabitants of Aleppo had nothing to apprehend in the present year, because the air was still pure, and their constitutions not disposed to receive the infection; in favour of which notion it was urged, amongst other arguments, that the Jews, who in a particular degree are exposed to catch the infection, had hitherto remained untouched.

The fact respecting the Jews happened to be true; but the hopes founded on it were of short duration. A Jew banker was taken suddenly ill on the 14th whilst in his shop, and died on the
 third

third day;⁶ being the first instance I met with of pestilential accidents among the Jews. None, of several female attendants constantly employed about this man, received the infection, but one of the grave diggers who assisted at the burial, was taken ill immediately on his return home, and died also in three days. He left his brother, who lived in the same house, ill of the infection, and from him it passed in succession through the whole family, consisting of five or six persons, of which two only recovered.

CHAP.
IV.
1760.
Aleppo.
June.

My account of the infected on the 16th of June, amounted to seventy, in which number were included the convalescents, who had come from other places: but after the plague had once discovered itself among the Jews, its progress in their district, as also in other parts of the city newly infected, became an object of more consequence than the importation of the plague from abroad; so that during the remainder of the season, I was less attentive to the state of the caravans that arrived from Damascus and other places.

It is remarkable that before the middle of June, it was rare to find more than one person sick in the same family, even in the houses of the meaner class; and the attendants employed immediately about the sick, so often escaped the infection, that people were too often led to believe the disease was not the true plague: but in the last fortnight of June, whilst a greater proportion of the sick recovered, the disease became manifestly more contagious.

The plague had shown itself from time to time in some of the Khans and streets in the inner parts of the town, but its power seemed to be chiefly exerted in Mashirka, and in those parts within, near the town wall, between the Dark Gate and Nereb Gate, comprehending the west and south west skirts of the city. After the middle of June, the contagion reached the extensive suburb

⁶ Appendix. Case III.

BOOK 1. Bankusa, and spread gradually northward to the Judeda, touching slightly in its passage the intermediate suburbs which, like the Judeda, contain a number of Christian inhabitants. In all these parts, its progress was remarkably slow, as well as in the Jewish district, and the central parts of the city; for though the disease, from its first appearance, was highly malignant, inasmuch that hardly one in eight of the infected recovered, the daily funerals, before the 21st of June, seldom amounted to six, and through the remainder of that month rarely exceeded eight.⁷

1760.
Aleppo.
June.

After the middle of June, a larger proportion of the infected recovered than before: for which reason the increase of the contagion, if estimated from the mortality, would appear less than it really was; and if, from the alarm raised at that time among the populace, it would appear much greater; because when once the distemper gets among the Jews and Christians, it soon comes to be better known, not only to the Europeans, but to the city in general, than when confined to remote districts of the town, among people who have little connection with the commercial part of the citizens: to this may be added, that the death of one or two persons of distinction never fails to make more impression on the multitude, than the death of twenty obscure persons perishing in the same malady.

On the 27th of June, a Christian lady in the Judeda, was seized with the plague; the son of an Effendee of high rank died in the city; and the brother, together with a female relation of the Jew banker, formerly mentioned, died about the same time. Each sect of the inhabitants having now a local proof of the existence.

⁷ Pestilential burials only are understood here, that is, such as, according to the accounts brought by the washers of the dead, had visible marks of infection upon the body, or such as died under my own observation. But the number of pestilential deaths was certainly greater, for the town was remarkably healthy in other respects, so that several more may be supposed to have died of the plague, notwithstanding no external marks were discovered after death.

of the distemper, and all happening to become public together, a general dread and credulity succeeded, in which every thing that had been reported of the plague before, as well as what continued to be reported for some time after, was readily believed.

CHAP.
IV.

1760.

Aleppo.

June.

To whatever cause might be ascribed the plague's not spreading with more rapidity in the season generally reckoned the most favourable to its propagation, it is certain that towards the latter end of June, it had, in a manner, surrounded the city, and was found dispersed in several of the more central streets; insomuch, that there was hardly one district in which I did not know of persons lying infected. The situation was such as rendered it high time the Europeans should consult their own safety; for although their quarter remained hitherto free, it was impossible to foresee how long it might continue so; nor could very dangerous communication with the natives be prevented, as long as the doors were kept open and the domestic servants permitted to go abroad. Former experience did not justify any expectation of the distemper's terminating sooner than the end of August; and to put off preservatory caution till the danger should approach nearer, was evidently to run the risk of shutting up with the infection. These considerations induced the gentlemen of the British factory, who had some time before made preparations for such an event, to shut up entirely the last day of June. The other Europeans shut up about the same time. June 30.

In order to be more at liberty to visit the infected, without exposing others to the danger I was willing to incur myself, I had, ever since the first appearance of the plague, withdrawn myself from the society of the Europeans. The time was now arrived to take the resolution either to continue to expose myself as before, or to retreat to my own house; for without performing a previous quarantain, it would have been improper to have taken refuge in the house of any of the gentlemen of the factory.

Though

BOOK

I.

1760.

Aleppo.

June.

Though there was good reason to believe the confinement would not be of long duration, there was little ground for expectation that the plague would not break out again in the ensuing year: it became therefore a consideration to one who had no thoughts of an absolute retreat from the city, to carry his view forward, however gloomy the prospect before him might be. I was sufficiently convinced that a physician must unavoidably be exposed to no small degree of danger in the beginning and in the decline of a plague; that is, for some time before shutting up, and some time after coming abroad from confinement; it being then usual to conceal the distemper by artifices beyond the power of the most scrupulous caution always to defeat. It is not uncommon for the physician to be led to the bedside of a pestilential patient, whom he had been solemnly assured was labouring only under some ordinary disease.

But considerations of still more importance, were the difficulty of detecting the disease under that variety of shapes it was apt to assume, more especially at the beginning; and the serious consequence of the physician's decision with respect both to others and to himself. Where a case, not pestilential perhaps, was pronounced to be the plague, the patient was often in hazard of being abandoned to the care of mercenary attendants; the family in the utmost consternation deserted the house; the dread of bringing the infection along with them rendered it a difficult matter to procure shelter elsewhere; and it sometimes happend, that the unhappy family, in the very house chosen for refuge, was soon involved in the calamity from which they had fled. On the other hand, where the case was really pestilential, a mistake in opinion, by preventing a timely retreat or proper precaution, exposed, perhaps, a numerous family to imminent danger, as well as the physician's own health: not to mention the consequences extended to other families, into which confidence in his skill and integrity procured him access, without suspicion or reserve.

A knowledge of the plague sufficient to enable a physician, in some measure, to avoid errors of such importance, did not appear attain-

attainable in any other manner than by actual practice among the infected: and though such acquisition could not be made without risk in a considerable degree, yet that risk, in as much as it was voluntarily incurred, seemed preferable to precarious security, attended by diffidence, irresolute decisions, and the chance, after all, of contracting the distemper, perhaps in the very moment when least expected. Considerations of this kind had the more weight from my own short experience of the plague, which, though far from having hit herto enabled me to distinguish in every case, had taught me to decide readily enough in some by which I had formerly been embarrassed. Convinced therefore, as I was, that the most certain road to further acquisition was that in which I set out at first; I determined to give myself up to an attendance on the infected, at least for one season: a resolution which, although it carried to others the appearance of presumptuous rashness, I was able to justify to myself on such principles as left me calmly resigned to the consequences.

CHAP.
IV.

1760.

Aleppo.

June.

The plague had got to near its height about the time the Europeans entered into confinement; the daily funerals which were then nine or ten, seldom afterwards exceeded sixteen or eighteen; and that only during the first week of July. As a larger proportion, however, recovered than in June, the contagion might be said to be on the increase till the 10th of July. After the middle of that month, it declined sensibly, more especially in the suburbs to the south, where it had hitherto chiefly subsisted; and though more accidents were heard of at this time among the Christians, the distemper, in general, was certainly in its decline. Towards the end of the month it was greatly diminished.

July.

The European consuls, with most of the French gentlemen, remained shut up till the end of July: most part of the English began to come abroad about ten days sooner.

In the first week of August, the funerals increased; owing partly to the plague, but mostly to the ordinary autumnal diseases, more especially

BOOK

I.

1760.

Aleppo.

August.

especially to a remittent fever which became rife about this time. To this fever indeed was ascribed the whole mortality; for the same industry which had been used at the beginning of the season to persuade the Europeans that the contagion had not reached the city, was now employed to persuade them of its total extinction. But the pestilential accidents, though few in number, were too notorious to be called in question, except by a few of the dependants on the Europeans, who continued to affirm that the epidemic fever was the only disease remaining in the city. At length a single accident raised an alarm among them and the Jews, not less than if the plague had unexpectedly broke out afresh. The beginning of August a Rabbi, who kept a school for boys, was taken ill; but it was not publicly known till the day after. I found him surrounded by above a dozen of his scholars, besides several women and children of the family, of all which, none caught the infection except his wife, who fell ill within eight days after him, and recovered. The man himself died the 6th of August.⁸

After the 10th of August, recent instances of infection became exceedingly rare. The last case I had occasion, myself, to see this year, was that of a Turkish lady, who on the 18th, called in at my house on her return from the bagnio. She had been seized two days before, and showed me a small axillary bubo. I heard of no instance of infection later than the 17th, nor could I learn, on the strictest enquiry, that any person had died in Aleppo of the plague, after the 20th of August.

The number of the dead in this year, according to my account, did not exceed five hundred: an inconsiderable mortality, considering that the plague had not been confined to one district, but was found in a dispersed manner in many parts of the city.⁹

⁸ Appendix. Case VII.

⁹ The funerals were less attended to in this than the subsequent years: but I do not think they exceeded the number mentioned above, pestilential funerals only are here meant, and children under three years are not included.

C H A P. V.

Historical Journal of the Plague at Aleppo, Anno 1761.

CHAP.
V.

1761.

Aleppo.

THE plague had disappeared at Aleppo, in the preceding year, about the 20th of August. The autumnal season was rather sickly, but the predominant diseases bore no pestilential marks, and went off on the approach of winter, leaving the city in a state of tranquillity little disturbed by apprehensions of what might happen the ensuing spring. The hopes generally entertained of the total extinction of the plague, were not, however, supported by the experience of former times: on the contrary, it was highly propable from the progress of the distemper hitherto, that it would break out again in the vernal months. The sequel furnished a fresh proof of the expediency of making provident preparation, in circumstances so suspicious, for the worst that might happen.

The villages which are situated in the plains round Aleppo, and which had been slightly, like that city, visited by the plague, remained throughout the winter free from any contagious distemper; but the villages in that chain of mountains between Antioch and Latachea, which had received the contagion late in the autumn, retained it all the winter, and in some of them it made considerable progress, notwithstanding a pretty severe frost in the month of January.

In the month of December, some persons retired from the mountains of Shogre to Edlib, on account of the plague then frequent among the villages; and, not long after, an infected family from one of those villages, came also to Edlib, where some of them died. It will not appear strange that accidents of this kind should have sometimes happened, considering the constant intercourse subsisting between the villages in the mountains

E

and

BOOK and the towns of Antioch, Shogre and Edlib; nor is it impro-
 I. bable that similar accidents happened at Aleppo also, although
 1761. they came not to the knowledge of the Europeans.

Aleppo.

In the mean time so far is certain, that although infected persons came from the mountains to the three towns just mentioned, and some of them died in the families where they lodged, yet the distemper, by such means, was not propagated; as if divested of that contagious property in the plains, which it seemed to retain undiminished in the mountains.

It was not in my power to procure exact accounts of the plague among the desert Arabs, nor in the numerous villages to the south and to the east of Aleppo; but the towns and villages to the northward had hitherto remained untouched. It is probable the Arabs had received the infection from Damascus in the summer, and that it continued all the winter in their encampments. It had certainly got to a considerable height among them early in the spring of this year, and about the beginning of March had reached the village Spheery¹.

It must no doubt appear surprizing how the plague should have continued so long in the mountains at no great distance, and the Europeans in Aleppo remain ignorant of it: or, that they should not have been more alarmed by such reports as happened to reach them. But it will appear still more strange, that in Aleppo itself, sixty or seventy persons had been carried off by the plague, before the Europeans knew any thing of the matter; and when information was given publicly of the plague's being actually within the city, that there should be found persons who allowed themselves for some time to be imposed on by the artifice commonly used to conceal the distemper: artifice which former experience had both detected and exposed.

¹ A village about three hours from Aleppo, situated on the borders of the desert.

Soon

Soon after the middle of March, the plague reached an Arab encampment, close to Nereb Gate, and a Keifaria, within the city, near the castle. In both places the mortality amounted to above sixty or seventy, before any thing was known of it to the Europeans.

CHAP.
V.

1761.

Aleppo.

March.

The first intelligence I myself received was on the 29th of March, and the fact being confirmed by a visit I made next day at the Keifaria, the Consul not having it in his power to grant a clean patent, a ship at Scanderoon sailed without taking even letters from Aleppo, and the whole of her intended cargo then on the road to the sea-side remained behind, incapable of being shipped for England till the end of the year following.

The plague had broke out in the Arab camp and in the Keifaria, nearly about the same time; and in the former did not prove less fatal; for of sixty-eight persons infected, three only recovered. Soon after its appearance it became so formidable, that many of the Arabs abandoned their tents, some flying to the villages abroad, whilst others took refuge in the houses of their friends within Nereb Gate, or in the suburbs lying between that gate and Bankufa, to which parts the contagion was probably by these means communicated; for I was afterwards informed by one of the washers of the dead, that in March he had not only met with infected bodies among the Arabs, but likewise among the native Turkish inhabitants of the districts now mentioned.

Opposite to the Arab camp, at the distance of less than a hundred paces, was encamped a tribe of Chinganas, who when they observed the disease to increase so fast among the Arabs, had the prudence to transport their tents to a village at a little distance from town, so that in the beginning of May there were only five or six tents remaining at Nereb Gate. It is remarkable that, notwithstanding the vicinity of the two camps, and though the Chinganas did not begin to remove their tents till near the

BOOK I. middle of April, two of them only were infected with the plague,
 or at least (as I was well assured) two only died.

1761.

Aleppo.

March.

When it was known publickly in the city that a clean patent had been refused by the Consul, people in general were surprized that the English caravan, which had left the city early in the morning, had been permitted to set out, and were ignorant from whence the Consul should have received such unexpected intelligence; for this last circumstance had been communicated only to the gentlemen of the factory. Some of the dependants on the Europeans declared loudly, that there was not the least ground even for suspicion; while others confessed they had heard vague reports, which, upon enquiry, were found not to be true. At the same time some of the French, as well as other Europeans, were inclined to join in the opinion, that the English Consul had been too easily alarmed; for it seemed against all probability that the plague should really be in the city, and yet the natives know nothing at all of the matter.

This was a natural enough supposition, if by the natives be understood the Maronite Christians, the Jews, or others connected with the European warehouses; for the plague undoubtedly may for sometime subsist in certain parts of the town, unknown to them, unless they be at some pains, and step out of the ordinary tract of business to make enquiry about it. It were to be wished at the same time, when they come to know of the plague, whether by search or by accident, they could be persuaded to think the interest of commerce less concerned in the concealment of it.

April. After the first week of April, reports of the plague were contradicted with less and less confidence in most parts of the town, except the quarter of the Europeans and in the Judeda, where they gained but little credit till about the middle of the month. The distemper indeed advanced slowly, and mostly in the skirts of the city or distant suburbs. But its progress then was

was the less attended to, as no accident had hitherto happened in the public Khanes, nor had any Turk of note or condition died within the city. About the middle of the month some accidents appeared in the quarter of the Jews, and in the Judeda.

CHAP.

V.

1761.
Aleppo.
April.

It was now the month of Ramadan; a season in which the public bazars and the coffee-houses are unusually crowded in the night, and in which the Turks, as well as Christians, from different and remote quarters of the city, mingle more together than at any other time of the year.

May.

As the contagion was not observed to spread with such rapidity as might in such circumstances have been expected, some pretended it had totally ceased, which, however improbable, would have been more generally believed, had not pestilential accidents, from time to time, come to be known, in spite of the care employed to hide them from the public.

The Byram of the Turks, and the Easter of the Greeks, happened this year nearly about the same time. Those festivals last three days, and, besides interchange of visits of ceremony at private houses, they are the occasion of crowds assembling together at all the public places of resort. There were, at this time, few or none who did not believe the plague was in the city, among the lower people the subject was talked of without reserve; but in assemblies of higher rank, as it would have been reckoned unpolite to sadden the time with unpleasing news, truth seemed to have been banished by general consent; and it was common to hear mutual congratulations, on the deliverance from the pestilence, uttered with the utmost solemnity, by persons who, on other occasions, were scrupulously honest².

Accidents

² I met at this time with a curious instance of dissimulation. On a visit of ceremony to the Mufti, the first day of the Byram, a person esteemed of great erudition, took occasion in the midst of a large company, to declaim, for some minutes, on

BOOK I. Accidents happened among the Jews early in May, but it was near the middle of the month before it became generally known that the plague had reached that quarter.

1761.

Aleppo.

May.

From this period all contention ceased. Those who had hitherto regarded the exemption of the Jews as a strong argument against the existence of the plague, were constrained to give it up, and to own conviction³.

All this time the Arabs and Bedoweens continued to suffer in a remarkable degree; and the distemper increased also in the northern suburbs, as well as dispersedly within the town. But

the improbability of the plague's affecting the city that year; and, amongst other arguments in favour of his opinion, he produced some of an astrological kind, that had great weight with his auditors. He asserted also, from his own knowledge, that no pestilential accidents had happened for several days. About three hours after, I again met with this philosopher in the street, who begged I would go with him to his house, in order to visit his son, who had been ill some time. While I stood at the door of the Harem, to give time to the women to veil themselves, I heard the boy shriek several times as if in pain, and on my entrance could overhear the women entreating him not to say any thing of his arm. This circumstance, joined to the confused appearance of the boy's countenance, would have raised suspicion, could I have decently suspected the veracity of the father. When I took hold of the left wrist to examine the pulse, I happened to draw the arm somewhat carelessly toward me, on which the boy complained bitterly of pain in the armpit. The father joined the women in assuring me there was nothing visible there; but I insisted on the part being uncovered, and then found a large bubo, which they confessed had appeared the day before. The boy expired in the night.

³ It is a notion prevalent at Aleppo, that a plague cannot subsist in the city any considerable time, without being imparted to the Jews. Many of that nation are employed as brokers and pedlars, in most parts of the town; and numbers, who deal in old cloaths, daily pass through the streets, purchasing their wares from all ranks of people. In this manner it is supposed the distemper is transported to the Jewish district from the most remote quarters, while the intermediate parts of the town may remain untouched. This conjecture is far from appearing improbable; but when it is considered that the Arabs and others, who in this year happened to be the first victims of the distemper, were possessed of little to be sold of which even the Jews could make any advantage, it will be easily conceived why the plague was not communicated early to the Jews by the usual channel.

its discovery among the Jews caused the greatest alarm; and, being soon followed by some accidents in the neighbourhood of the European houses, and by the infection of the son of a French watchmaker, the Consul, and most of the gentlemen of that nation, shut up the 16th of May.

CHAP.
V.

1761.

Aleppo.

May.

Though the funerals were more numerous in the first week of May than the second, there was less reason to wonder, as many did, at the hurry of the French in shutting up, than that the Europeans, in general, should have continued so long supinely neglectful, considering the increase of the funerals ever since the first week of April. The truth was, that many allowed themselves to be amused by the natives, and were deceived in thinking, that while all remained so quiet in their own district, there certainly must have been some mistake in the intelligence, which asserted the plague to be on the increase. It was not adverted to that from the remote parts of the town, where the disease at that time was said to prevail, there was no more reason to expect a multitude of funerals should pass in the European quarter, than if the deceased had perished at Grand Cairo.

The disease continued to increase in the last fortnight of May; but several accidents being concealed, the English were not alarmed so as to shut up, till one of their cooks, in his return from market, was seized suddenly in his master's house.

Upon this accident the Consul, as well as several gentlemen of the factory, who had long before made provision for confinement, and for some time had observed certain precautions, shut up the 28th. Others who had been less alarmed, thinking it was now time to consult their own safety, hastened the necessary preparations, and shut up two days after.

* Appendix, Case XVII.

BOOK I. The weekly bills of mortality from the 5th of April to the 1st of June, stood as follows :

1761.	Monday, April 6.	1st Week	58	
Aleppo.		2d Week	88	
May.		3d Week	125	
		4th Week	113	381 April.
	Monday, May 4.	1st Week	171	
		2d Week	139	
		3d Week	177	
		4th Week	290	777 May.

I must beg leave at this place to observe, that in a country where no registers are kept, and where neither the police nor public curiosity bestow any attention on such matters, an attempt to get any tolerable account of the funerals has many difficulties to encounter with. The fidelity of the persons employed to collect the accounts must often be suspected, and in truth, the task, if faithfully executed, is attended with danger. Of these difficulties I am so sensible, that, notwithstanding the time and expence devoted to the collection, I am still far from regarding the bills of mortality as absolutely exact; but flatter myself only that the errors are not very material ⁵.

June. As it was not my intention to expose myself this year in the same manner as the year preceding, I had, in the month of April, prepared a retreat in the house of one of the gentlemen of the factory, and accordingly shut up about the beginning of June.

On the 6th of June, a priest died in the convent of the Terra Santa. He had been observed walking on the terrace two or three days before, and the account of his death given out by the

⁵ I employed four or five persons disposed at different stations for the Turkish funerals, and one person on purpose for the Christian. Those brought me daily reports of the funerals.

convent carried some very suspicious circumstances of his having died of the plague. This accident, whether pestilential or not, disposed the Europeans to be more attentive to the rules of confinement.

CHAP.
V.
1761.
Aleppo.
June.

After the beginning of June, the plague increased every where with great rapidity; the burials in the first week rising to 670 from 290, the amount of the last weekly bill in May. Before the middle of June, a small proportion of the infected recovered; but from that time the disease, though equally contagious, was less fatal, and therefore though the weekly bills of mortality through the rest of the month decreased, the plague might be reckoned to be in its augment till the beginning of July, at which period it reached its utmost height.

June
and
July.

In the month of July, a still larger proportion of the sick recovered; in the second week, the contagion as well as the mortality manifestly decreased; and after the middle of that month, both declined rapidly.

The weekly bills of mortality, from the 1st of June to July 27.

	1st Week.	2d Week.	3d Week.	4th Week.	1st Week.	2d Week.	3d Week.	4th Week.
Turkish Burials	629	502	444	553	601	410	443	204
Christian - -	31	33	46	47	88	59	44	28
Jewish - - -	10	8	15	12	19	14	9	4
	<hr/> 670	<hr/> 543	<hr/> 505	<hr/> 612	<hr/> 708	<hr/> 483	<hr/> 296	<hr/> 236

It may be remarked that the plague was late in reaching the Jews and Christians, and did not spread much before the middle of June, when the disease was less fatal than it had been before; so that the mortality on the whole was proportionally greater amongst the Turks. It may be remarked also, that the declension of the distemper among the Jews and Christians was rather by slower degrees.

F

From

BOOK I. From the time the Europeans entered into confinement, the city began to assume a desert dismal appearance; the publick khanes were little frequented by the Turkish merchants, and totally abandoned by the Christians. The streets and bazaars were thin of people, the greater part of the shops, except such as supplied the necessaries of life, were seldom open; and few or no caravans arrived from abroad.

1761. Aleppo. June and July.

In general, the Turks used more precaution for their own preservation than usual in the time of former plagues. Many of the higher rank kept much retired in their own houses, and neither permitted their women to walk abroad, as customary, nor to receive visitors indiscriminately at the harem. Of the Christians, a greater number shut up than had ever been known before; and dread of the contagion prevailed even in the lower class, so universally, that it was very difficult to procure persons to nurse the sick. In the interior of the Turkish harems (as the women owned to me afterwards) it sometimes happened that the mistress or daughters of the family found themselves in their illness in a manner deserted, their slaves shrinking from attendance. This extreme terror of infection was said to have been unknown formerly among the Turks at Aleppo; and to the precautions they were induced to observe this season, some were inclined to attribute the plague's not spreading more extensively.

The situation of the Europeans during the time of confinement was in reality less dreadful than might naturally be imagined. The burials observed to pass in their quarter rarely exceeded four or five daily, and of persons belonging to the law,⁶ not above ten or twelve of a certain rank were carried off this year, so that neither the lamentation of the women who accompanied

⁶ The deaths and funerals of Effendees, or people of the law, and the children of such as are eminent, are announced by a dirge from the minarets performed by several voices, and at two or more mosques, according to the quality of the deceased.

the corpse to the grave, nor the mournful chanting from the minarets gave much disturbance in the day time. The stillness of the night was sometimes indeed interrupted by the shrill exclamations uttered by the women, at the instant a person of the family expires, and which, of all other alarms, are apt to excite the most awful sympathy and terror; but this happened seldom.

The Europeans therefore, though in the middle of an infected city, felt little of the public distress, and were spectators in part only of the horrors of a pestilence. The attention of the eastern police to a speedy interment of the dead, was a protection against what is often in the European plagues, one of the most shocking spectacles. A due observance of the established laws of confinement secured them against the danger by which they were encompassed; and they were regularly supplied with fresh water, provisions of all kinds, and the different fruits in season. The chief subject of complaint was the confinement; which however was soon rendered tolerable by habit, falling heavy on such only as had not necessary business sufficient to employ them, or who unhappily possessed not the art of devising amusement for leisure hours.

The plague had begun to decline in the second week of July; towards the end of the month it was every where much diminished, though not altogether in so great a degree as the Europeans were given to believe. The usual period of its termination was now arrived; accidents were become very rare among the Maronite Christians, and it was too hastily inferred that all the other parts of the city were equally with the Judeda restored to a healthy state.

I came abroad from confinement the 29th of July, and, according to my expectation, soon found that the distemper was very far from having ceased. The greater part of the Christians of condition in the Judeda remained still shut up in their houses, and

BOOK I. did not venture abroad till ten or twelve days after. Some of the English gentlemen road out for an airing the 1st of August, but none of them, I believe, opened entirely sooner than the 10th of that month.

1761.
Aleppo.
July.

August. During the first fortnight of August, pestilential accidents happened within the city, but were more frequent in the suburbs. On the 7th the only son of an eminent Effendee⁷ was infected, which being publickly known, procured credit to several other reports about the same time, that otherwise, though true, would no doubt have been contradicted.

The French Consul, with the gentlemen of that nation, who still remained in confinement, came abroad on the 17th. The English Consul, and two or three gentlemen of the factory, thought proper to continue close shut up: and what happened soon after, showed that their precaution had not been unnecessary.

About the 20th of August, the death of several persons who had been infected the preceding week, joined to some recent accidents of infection, which came to the knowledge of the Europeans, occasioned alarm. Attempts to concealment were now laid aside, so that for some days it was more easy to procure accounts of the infected. But what served to compleat the general consternation of the Christians, was a discovery made the 21st, that the superior of the Jesuit's convent, who had been sick several days, lay certainly ill of the plague.

The French and Venetian Consuls immediately shut up again, and several of the merchants of different nations followed the example. They remained in confinement till the 30th, when the manifest decrease of the distemper, in all parts of the city,

⁷ The Chilleby Effendee, at that time in the office of Nakeeb, or chief of the Shereefs or Greenheads.

encouraged them to venture once more abroad. The English Consul, and such of the English gentlemen as had continued all along shut up, opened their doors on Monday the 31st of August.

CHAP.

V.

1761.

Aleppo.

August.

The weekly bills of mortality, from the 27th of July to the 31st of August stood thus:

	1st Week.	2d Week.	3d Week.	4th Week.	5th Week.
Turkish Burials	70	88	78	84	52
Christian -	29	20	10	16	10
Jewish - -	3	2	2	8	4
	<u>102</u>	<u>110</u>	<u>90</u>	<u>108</u>	<u>66</u>

The daily bills of mortality, from the 27th of July to the 31st of August, including the Turkish and Christian burials:

	T. C.		T. C.		T. C.		T. C.		T. C.
July 27,	13 4	Aug. 3,	8 2	10,	8 2	17,	12 1	24,	8 2
28,	13 5	4,	14 2	11,	8 0	18,	10 2	25,	11 3
29,	11 5	5,	19 6	12,	7 0	19,	14 2	26,	11 0
30,	8 3	6,	7 3	13,	17 2	20,	12 2	27,	9 1
31,	7 2	7,	10 2	14,	12 4	21,	15 3	28,	3 1
Aug. 1,	12 4	8,	14 2	15,	14 1	22,	13 4	29,	6 2
2,	9 3	9,	16 3	16,	12 1	23,	8 2	30,	4 1
	<u>73 26</u>		<u>88 20</u>		<u>78 10</u>		<u>84 16</u>		<u>52 10</u>

From the bills of mortality in the month of July, it appears there was a great decrease in the Turkish burials after the 12th of that month; and in the last week, commencing the 27th and ending the 2d of August, it appears from the bills now produced, that the burials fell to 73, from 204 the amount of the Turkish bill in the preceding week: after which time, till the last week of August, the variation was not considerable.

Were an estimate therefore to be formed from the weekly bills of mortality, the distemper would appear to have continued nearly
in

BOOK in the same state from the 27th of July to the 24th of August.
 I. But the real state of the contagion cannot be justly estimated in
 1761. this manner; because a large proportion of the infected recovered at that time, and it sometimes happened that the infection spread with singular fury those days on which the burials were fewest. To this last circumstance were owing those deceitful calms, by which the people were often tempted to expose themselves, and hence the assertions of the plague's having ceased, at the very time, perhaps, it was more than usually active. Instances of recent infection were not immediately known to the public, sometimes not till after several days, and sometimes discovered only by death; such as recovered, being seldom heard of. I was in this manner myself deceived more than once, till experience had taught me more caution.

The fluctuation of the funerals appears clearly from the daily bills of mortality, and seems to denote the progress of the plague to have been irregular and desultory: nor was this remark less applicable to the other stages of the plague than to its declension. As therefore the burials increased on certain days, it is evident there must have been certain days on which the infection was propagated in an extraordinary degree; and had it been practicable in so extensive a city to have procured accounts tolerably exact of a larger number of the infected, they might, perhaps, together with the Meteorological Register, have contributed to a discovery of the influence of the weather, both in respect to the communication of infection and to the termination of the disease.

Sept. The appearance of the Consuls in the public streets in September, by giving a sanction to the opinion of the plague's being over, served in some degree to quiet the apprehensions of the people. But the opinion in reality was ill founded; for instances of infection were not only more common in the first week of September, but the burials also actually increased; and as several

veral of those accidents could not be suppressed, they naturally occasioned some alarm.

CHAP.
V.
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1761.
Aleppo.
Sept.

In the second week of September, the several European Consuls had their public audience of a new Bashaw; a circumstance that would have more generally inspired courage had not several accidents joined at the same time to disturb the public hopes: of those, some happened among the Maronites to persons well known, so that they could not be long concealed, and indeed, few attempts were made at this period to hide the distemper.

The unexpected continuance of the plague was ascribed to the cool weather succeeding extraordinary rains that had fallen the beginning of the month. But the season was now too far advanced to expect much from the influence of hot weather, which was believed to have put a stop to the plague in former years. The probability of its continuation till the winter became the subject of common conversation; and some of the more experienced natives made no scruple to declare their fears, that the ensuing year might prove worse than the former.

There was an increase of the funerals in the second week of September, partly owing to the tertian fevers which became more formidable about that time; and it should be observed, that a large share of the mortality in the following months is to be ascribed to diseases distinct from the plague. In the third week the distemper suffered little alteration, but seemed to decrease in the fourth week, at least I met with fewer recent accidents. The burials indeed increased, particularly among the Christians, as will appear from the bills for September.

	1st Week.	2d Week.	3d Week.	4th Week.
Turkish Burials	66	80	55	64
Christians - -	7	14	8	14
Jewish - - -	3	4	3	0
	<hr/> 76	<hr/> 98	<hr/> 66	<hr/> 78

BOOK I. The plague continued nearly in the same state from the last week of September till the 12th of October, after which it declined considerably. About the 19th it again increased, and continued with little variation till the beginning of the following month.

About the beginning of October died an Italian clerk, in the service of one of the English gentlemen; and on the 25th the French Consul's family was greatly alarmed, as well as many of the European gentlemen who had lately frequented the house, by a discovery that the wife of the French Consul, who dwelt in the consular house, had got the plague. The hopes lately entertained by the Europeans of the plague being about to cease, were much damped by this unfortunate accident; for though it was not pretended the distemper no longer existed, yet few of the late accidents were generally known, and the calm observable in the Judeda and in the quarter of the Jews, led now, as it had done at the beginning, to very erroneous notions of the state of the plague. To this may be added, that the fear of infection had perhaps been diminished by time, and unless excited by some nearly connected object, caused little obstruction either to business or pleasure, so that the Europeans, as well as the natives, went about every where with very little reserve.

The weekly bills of mortality, from the 28th of September to the 2d of November.

	1st Week.	2d Week.	3d Week.	4th Week.	5th Week.
Turkish Burials	71	87	53	94	130
Christian -	14	16	11	13	24
Jewish - -	0	3	2	3	2
	<hr/> 85	<hr/> 106	<hr/> 66	<hr/> 110	<hr/> 156

The increase of the burials in the first fortnight of October was undoubtedly owing, in some degree, to the autumnal diseases, more especially to malignant irregular tertians, which were

were predominant at this time, and, in their beginning, a good deal resembled the plague; but in the last week, it was too considerable to be ascribed to the same cause; nor could it be ascribed to the increase of the contagion, supposing the same proportion of the infected to have recovered as in the former months. In order to account for this it must be observed, that the plague, at this period, had undergone a remarkable change. Ever since the beginning of October, the proportion of those who died had been greater than at any time since the month of June, and after the middle of October, hardly one-third of the infected recovered. The disease began to assume its most malignant forms, and sometimes proved fatal in less than forty hours.

CHAP.
V.
1761.
Aleppo.
Oct.

In this malignant state, with little or no variation, the plague continued the two succeeding months. About the middle of November, it seemed to me to decrease; but from the beginning of the fourth week till the 20th of December, it certainly increased, particularly among the Christians. The accidents among the Turks, in the first fortnight of December, were chiefly in the suburbs. After the middle of the month, the weather was for some days serene and frosty, a change which produced no sudden alteration in the distemper. A few days before Christmas, however, it appeared so considerably diminished, that I ventured to return to the society of the Europeans, from which I had withdrawn myself ever since my coming out from confinement. But this flattering interval was of short duration; the plague reviving towards the end of the month, the Christian festival of the new year was soon interrupted by fresh alarms.

Nov.
and
Dec.

The weekly bills of mortality, from the 2d of November to the 4th of January.

Burials.	Nov.	1st W.	2d W.	3d W.	4th W.	Dec. 1st W.	2d W.	3d W.	4th W.	5th W.
Turkish		120	90	108	149	134	132	146	87	84
Christian		14	21	12	16	29	21	18	15	13
Jewish		3	5	4	2	3	3	2	3	2
		<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
		137	116	124	167	166	156	166	105	99

BOOK

I.

1761.

Aleppo.

Dec.

It has been already observed, that a considerable share of the mortality throughout the winter, was produced by diseases distinct from the plague, more especially to anomalous tertian fevers. To these in November was joined the small-pox, which carried off numbers of the children. The decrease of the burials observable in the two last weeks of December, was no doubt owing, in part, to the favourable alteration which at this time took place in these diseases; but the plague must also have greatly abated, for in its nature it was at this period more fatal than in the autumn; very few recovered, and some were said to perish within twenty-four hours or less, from the time they were themselves sensible of indisposition.

In the bills of mortality, I have not presumed to distinguish the pestilential burials; nor were my accounts of the infected sufficiently extensive to form an exact estimate of the degree in which the plague had subsisted since the beginning of the winter. But from what I had occasion myself to observe, and from accounts I could depend on, it was most certainly in a degree much more considerable than was generally believed.

Although a few only of the pestilential accidents, in proportion to those that really happened, were publicly talked of, the natives all agreed in declaring the plague had never before been known at Aleppo so formidable in the winter: and many went so far as to affirm, that it was the first instance of the plague's having been ever known at all that season. But it is to be regretted, that their accuracy in such matters can be so little relied on. What had happened in the year 1742 was entirely forgotten; and the accidents in the present winter, however strongly marked, will probably in the course of a few years more be obliterated from the memory of the people of Aleppo, leaving them, in spite of experience, as tenacious as before of a traditional opinion, that their city stands secure from the plague in the winter.

C H A P. VI.

CHAP.
VI.

Historical Journal of the Plague at Aleppo, Anno 1762.

1762.

Aleppo.

THE unexpected continuance of the plague through the various changes of weather in the autumn, as well as hitherto in the winter, leaving little room to expect its speedy termination, spread a gloom over the prospects of the new year. The dread of infection made little impression, the danger being considered as yet at a distance; but the stagnation of trade had for a long while been severely felt, and the consequent interruption of the numerous manufactures of the city had reduced the industrious lower order of inhabitants to great distress.

About this time the birth of a Prince, and heir to the empire, gave occasion to a festival of seven days, which, engaging the public attention to new objects, called it off for a short while from melancholy reflections. This festival is termed a Zeeny, from the decorations and illuminations employed in its celebration, and exhibits the Mohammedans in a point of view very different from what they are seen at other times. The persons of distinction appear divested of their habitual solemnity; while their inferiors, encouraged in public by an air of condescension to which they have not been accustomed, lay aside the servile humble demeanor so strongly expressive of abject dependance.

The crowds in the streets and bazaars, both day and night, are much greater than at other festivals, or in the Ramadan; the women stroll about every where from morning till-sun set, and multitudes of both sexes, led by curiosity, resort to town from the villages. People of all ranks, under the sanction of an imperial mandate to rejoice, give loose to frolic and revelry, and rival one another in endeavouring to render the spectacle brilliant by a splendid display of lamps and varied decorations in the shops and khanes.

BOOK

I.

1762.

Aleppo.

January.

A concurrence of circumstances so favourable to the propagation of infection was ill suited to the times; but amid the revels of the Zeeny the defolation impending over the city was forgotten. Little did the heedless populace think how soon to these scenes of rout and jollity were to succeed the funereal conclamations of the widow and orphan; nor what numbers of the assembled multitude were, in the short space of a few weeks, to be involved in the most severe of human calamities. Happier, perhaps, in the want of foresight, reflections of this kind arose not to sadden the hours of festivity; for, restrained by superstitious prejudice, they could not, by preventing so dangerous a concurrence, have adopted the proper means for their own preservation, and the looking forward could only have served to forestall the date of grief.

During the first fortnight of January, the plague remained nearly in the same state as in December. A good deal of snow fell on the 7th and 8th of the month, after which a frost set in that continued till the 19th. It was generally expected that this alteration of weather would have greatly contributed to extinguish any remaining sparks of contagion; but although little was heard of the plague during the time of the Zeeny, accidents nevertheless happened every day. In the third week of January the distemper certainly abated, and there was a considerable decrease in the burials; but in the last week it seemed again to increase in the distant suburbs, and several were infected in the interior of the city. It should be remarked that from the beginning of the year mortal distempers, distinct from the plague, had become very rare.

The weekly bills of mortality from January 1 to February 1.

	1st Week.	2d Week.	3d Week.	4th Week.
Turkish Burials -	126	80	42	49
Christian -	20	17	5	13
Jewish -	3	3	3	4
	<hr/> 149	<hr/> 100	<hr/> 50	<hr/> 66

Whatever share the alteration of weather might be supposed to have in producing the abatement of the distemper observable after the middle of January, it seemed to have little influence among the Arabs in the vicinity of Aleppo. On the west side of the city, without Prison Gate, among some ancient quarries, are a number of large grottos or excavations, which occasionally, in the winter, afford shelter to the Bedoweens, who at other times are encamped under the walls of the town. The plague broke out among the Bedoweens inhabiting these grottos about the middle of January, and carried off three or four every day. Still earlier, that is, about the end of December, it had reached some other caves at a greater distance from town, beyond the Fountain of Fishes, in which nearly a hundred Arab families had taken up their winter habitation; and there it raged violently all the month of January. In those places the cold weather seemed to have no more salutary influence on the contagion than in the circumjacent villages, all of which suffered severely about the same time.

CHAP.
VI.
1762.
Aleppo.
Feb.

The distemper continued variably increasing and decreasing through February. In March its advance, though not rapid, was more perceptible than in February, particularly towards the end of the month. An Armenian priest, who had attended the infected of that nation in the two preceding years, died at this time.

Bills of mortality for the month of February.

	1st Week.	2d Week.	3d Week.	4th Week.
Turkish Burials	29	50	71	89
Christian - -	13	13	11	19
Jewish - - -	3	1	0	0
	<hr/> 45	<hr/> 64	<hr/> 82	<hr/> 108

Bills

BOOK
I.

Bills of mortality from the 1st of March to the 5th of April.

		1st Week.	2d Week.	3d Week.	4th Week.	5th Week.
Aleppo.	Turkish Burials	90	98	82	128	133
1762.	Christian -	13	14	19	35	38
March.	Jewish - -	1	0	3	1	2
		<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
		104	112	104	164	173

April. About the beginning of April, died a young lady of French extraction¹, and some other accidents also within the city, happened in some of the khanes. Two or three Jews were infected about the same time, but it was not generally known. In the suburbs, the distemper continued nearly in the same state till the second week, when it certainly abated in the Judeda.

The Maronites, encouraged by this alteration in their quarter, entered chearfully on the 11th into their feast of Easter. They had forgotten already how often they had been deceived by pauses of this kind; nor could they be persuaded to omit the usual interchange of ceremonial visits. The plague, it was said, was about to cease entirely; or, at least, that it had spent its force, and would make no great progress; because it seemed not to possess its usual contagious property. In proof of this last circumstance it was urged, that the uncommon intercourse of all kinds of people, during the late Zeeny, had been productive of no ill consequence; nor in the month of Ramadan, although the weather was become warmer, had the distemper spread to such a degree as might have been expected.

The experience of the two preceding years was against this reasoning, however plausible in other respects. But the confidence with which the Maronites talked on the subject, together with their representation of the state of the Judeda, rendered

¹ Appendix, Case XXVII.

such of the Europeans, as relied on them for intelligence, less disposed to make early preparation for shutting up.

CHAP.
VI.

About the middle of the month, it was discovered that a number of the Christians had been infected during the holidays, and, what still more increased the general confusion, that many had paid visits, on account of the feast, at the houses of the infected, and had even communicated freely with the sick: the disquietude occasioned by such a discovery may easily be imagined; but it may be doubted, whether on future occasions the Christians will profit by the example, so as to avoid the incurring unnecessary risk by adherence to ceremonies which ought undoubtedly, at such times to be laid aside.

1762.
Aleppo.
April.

The distemper had not only increased in the Judeda, but within the city also; and several accidents had happened near to the European quarter. It was becoming every day more contagious; and I met with several instances of the sick dying more suddenly than had been observed hitherto in the spring. Information of these circumstances was given to the Consul and factory, on the 18th of the month, and I gave it as my opinion, that the time was come to have every thing in readiness for shutting up at a short warning.

In the latter part of April, the distemper seemed to abate among the Turks and Jews, but increased in the Judeda. This last circumstance being well known, should have had more influence on the Europeans in shutting up than it had, considering the constant intercourse with that suburb, by means of their dependants, which, in reality, exposed them to more risk than if the distemper, inconsiderable in the Judeda, had reigned within the city, in districts with which the Europeans have little communication, and whose inhabitants have no pretence of business for entering the European houses.

In

BOOK 1. In the mean while, none of the Europeans thought proper as yet to shut up. The Consuls indeed had for sometime before forbidden the admission of persons indiscriminately; and some of the merchants, while they kept pretty much retired themselves, had a watchful eye over their servants; but many used little precaution whatever, though it is not to be doubted, that a single accident in one of the merchant's houses, would, as in the preceding year, have put the whole settlement in confusion.

But such of the Europeans as were strongly averse to confinement, or to whom, on account of their private affairs, it was peculiarly inconvenient, were more easily led to give credit to common report, which represented the distemper as hitherto inconsiderable in the city, and as having abated in the Judeda. For two or three days indeed before the Turkish feast, the disease certainly appeared to abate in the Judeda, while the decrease in the Turkish funerals indicated also a similar alteration in the city.

The bills of mortality from the 5th of April to the 3d of May.

	1st Week.	2d Week.	3d Week.	4th Week.
Turkish Burials	136	198	161	216
Christian -	29	41	42	40
Jewish - -	0	1	2	1
	<hr/> 165	<hr/> 240	<hr/> 205	<hr/> 257

It appears from the bills of mortality, that the funerals in the second week of April rose to 240, which was less by 60, than at the time the Europeans shut up the preceding year, and that in the very next week they fell to 205. But the danger of infection, as it respects the Europeans, as hath already been remarked, ought to be estimated rather from the parts of the town where the plague subsists, than from the number of the burials; and in this view the time for entering into confinement was certainly arrived.

On Monday the 26th of April, the English Consul shut up. Of the gentlemen of the factory, one had shut up some days before. Some of the others shut up on the first of May, at the same time with the French Consul, and the greater part of the gentlemen of that nation. None of the European houses, so far as I know, remained open after the 7th of May.

CHAP.
VI.
1762.
Aleppo.
May.

After the middle of May, the distemper manifestly increased every where: it had got into the houses of several Turks of higher rank, and in several of the merchants houses it made terrible havock.

Towards the end of the month, orders were published by the Cady, for reducing the number of sheihs who at funerals precede the corpse, and chant all the way to the grave; as also to forbid the women, who attend the procession, from shrieking in the streets, as customary on those occasions. The intention of these regulations was to prevent the sick being disturbed, and the publick being alarmed by the noise of frequent burials. The Cady's ordnance was respected by the sheihs, but disregarded by the women, who continued to attend the funerals as usual.

Another ordinance of the Cady's was obeyed more punctually. The criers from the several minarets were ordered at each of the stated times of prayer, before the customary invitation, to chant nine times a certain verse from the Koran, which had it seems been discovered to be of sovereign efficacy against the plague. It was moreover enjoined publickly to all Musselmen to be religiously punctual in their devotions; and negligence in that respect was threatened with immediate punishment. These regulations were new to the people of Aleppo. The khanes and the bazaars began about this time to be deserted, as in the former year.

BOOK
I.

The weekly bills of mortality from the 3d to the 31st of May.

		1st Week.	2d Week.	3d Week.	4th Week.
1762.	Turkish Burials	- 255	194	233	502
Aleppo.	Christian -	- 45	54	55	61
May.	Jewish -	- 3	6	8	16
		<hr/> 303	<hr/> 254	<hr/> 296	<hr/> 579

I continued to make my usual round of visits till the 8th of May, and then retired to my own house, in order to perform a quarantine, having been too conversant with the infected to think of going immediately into the gentleman's house, with whom I proposed to shut up. At the expiration of a fortnight I quitted my own house in the night, and went to the destined place of confinement, which was not a hundred paces distant, on the opposite side of the street. The preparation made long before for this event, had rendered it unnecessary to transport any thing along with me; and on my first entrance, before going up stairs, I remained for sometime exposed to the fumes of sulphur.

Such of the Europeans, whose houses are connected by means of the terraces, sometimes visit one another during the shutting up on account of the plague; and in that manner several of the French gentlemen, in the beginning of the present season, had visited daily at the house of their Consul. A communication of this kind can only be justified on a supposition, that all the parties are strictly shut up, and that there is no risk of meeting in the passage with persons who are not. About the middle of the month, an accident happened which put an effectual stop to this intercourse, and for some time convinced the Europeans of the impropriety of it.

In passing to the consulary house, it was necessary to cross the terrace of a Venetian Jew-merchant, who remained abroad after

after the other Europeans had shut up, and at length entered into confinement in his house in the great khane, with a family, relations included, consisting of between thirty and forty persons. With this merchant, who appeared every evening upon his terrace, the French gentlemen conversed familiarly, not only after he had shut up his doors, but even before the family removed from their usual residence in the Jew's quarter, and entered into confinement. The family had been shut up about eight days, when one of the ladies being taken ill, a Turkish barber was clandestinely introduced into the house to bleed her, and the same evening, it being discovered she had got the plague, all abandoned the house in hurry and confusion, except the husband and two or three attendants. The lady recovered, and probably had been infected before shutting up².

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VI.

1762.

Aleppo.

May.

In the first Week of June, fundry caravans set out for different places, affording an opportunity to the strangers from abroad, who usually lodge in the public khanes, of flying from the city; but of these fugitives some were already infected. About the same time a number of Armenian bakers were seized with the plague. These people lived dispersedly in the city, and in the course of the subsequent fortnight between thirty and forty of them applied to me for advice³.

June.

² Of all the eastern people, the Jews appear to have the strongest dread of the plague. Their religion, it is said, forbids concealment of the distemper; and, when discovered, encourages the seeking security in flight.

³ During the time of my confinement, I gave all the assistance in my power to the infected, and had, for that purpose, made proper provision before the shutting up. The house where I lodged was situated on the west side of the great khane, towards which there was a range of windows about fifteen feet from the pavement. Such of the sick as were able to walk, came themselves to the khane; others sent their assistants, by whom I was informed of the progress of their illness. I spoke to them from one of the windows, and the medicines ordered were let down in a copper bucket with an iron chain, such as was used for taking in provisions. A stair that led to the Carmelite Convent past near one of our windows, by which means I brought such of the infected, whose eruptions I wanted to examine within a smaller distance, that is, within four or five feet.

BOOK

I.

1762.

Aleppo.

June.

In the second week of June the Christian burials diminished, but the contagion nevertheless spread among the Christians after the 10th, which produced an increase in the burials early in the week following. It spread also among the Turks and the Jews.

The plague continued to increase universally in the third week. The higher districts of the Gilloom and the Akaby, and parts adjacent to the European khanes, which hitherto had remained remarkably free, began to be involved in the common calamity. Funerals in the day-time past more frequently than ever, and, in the nights, the shrill voices of the women deploring their departed friends, were heard from all hands. The dirges from the minarets were also heard more frequently than in the former year; and the streets and bazaars became more and more deserted.

Accidents at this time happened in several of the Jewish families, who had shut up in the preceding week. In some houses they appeared to be owing to the neglect of due precaution; in others, the persons had received the infection before the shutting up; but such accidents were confined to the middle rank of Jews, who had protracted their stay abroad till after the 15th of this month.

The plague still continued to increase through the fourth week of June. I heard of ten or twelve instances where the sick were thought to have perished in ten hours after seizure; but, in general, the distemper preserved its usual period. A large proportion of the infected continued, as before, to recover.

In the last week, (terminating the 4th of July) the distemper manifestly increased in the centre of the city, as well as in those districts lying towards the west and to the north. In the streets near Damascus Gate, and to the south, it seemed, from the daily

daily bills of mortality, to have rather abated: but it was in this week the plague may be said, in general, to have arrived at its greatest height; for although the Turkish burials did not diminish considerably till the 7th of July, yet those who died must be supposed to have been taken ill some days before, which will bring them in respect to the time of infection to belong properly to the last week of June.

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Aleppo.

June.

Three Armenian Priests were taken in this week; but, what was more remarkable, a lay-brother was taken ill in the Jesuit Convent, which had been shut up since the beginning of May. He was the person employed in receiving provisions, and, it was said, had caught the infection from a man of whom he had purchased some fish. It was the more probable that he had been guilty of some neglect, as none of the servants in the other European houses, employed in the like offices, were infected.

Towards the end of June, the plague was raging in many Turkish houses of distinction⁴. There were many instances reported of persons dying in less than twenty-four hours.

The weekly bills of mortality from the 31st of May to the 5th of July.

	1st Week.	2d Week.	3d Week.	4th Week.	5th Week.
Turkish Burials	696	774	1029	1067	1249
Christian - -	92	75	141	156	175
Jewish - - -	22	25	38	50	48
	<hr/> 710	<hr/> 874	<hr/> 1208	<hr/> 1273	<hr/> 1472

The common accounts of the Turkish burials were, in general, much exaggerated, being made to amount on certain days to five, six, even to eight hundred. The Christian burials were also,

⁴ In the harems of the Cady, the Chillibee Effendee, Omar Effendee, Seyd Hassan Hamuey, &c.

BOOK I. in the European quarter, often represented to be double the real number. I have already declared that I do not look on my own accounts to be strictly exact; but it seems highly probable, that the mortality in former plagues, as in the present year, had been magnified much beyond the truth. There is no reason to think the people of those times were more accurate in observing, or less given to exaggeration than their successors; and I have heard it affirmed by several of the inhabitants of Aleppo, that in the year 1743, the Christian burials amounted on some days to eighty or one hundred: an assertion, which from good authority, appears to be erroneous⁵.

We come now to that period, when the distemper universally began to abate; and, in order to show more exactly the manner of its declension, I shall subjoin an extract from the daily bills of mortality.

Daily bills of mortality from the 5th July to August 2.

		Turkish.	Christ.	Jewish.		Turkish.	Christ.	Jewish.
July	5,	203	19	3	19,	64	12	2
	6,	154	25	3	20,	44	9	2
	7,	113	24	5	21,	45	10	1
	8,	96	25	5	22,	44	9	2
	9,	89	16	2	23,	33	7	2
	10,	109	15	0	24,	37	11	0
	11,	69—833	14—138	9—27	25,	33—300	9—67	3—12
	12,	97	13	1	26,	32	5	1
	13,	75	10	0	27,	32	10	3
	14,	77	14	0	28,	26	8	3
	15,	49	6	3	29,	28	3	1
	16,	46	7	2	30,	20	3	1
	17,	35	6	0	31,	21	4	0
	18,	51—430	11—67	3—9	Aug. 1,	24—183	7—40	0—9

⁵ "Our list of the Christians was tolerably exact, and notwithstanding many of them were gone out of the city, and the rest, who could afford it, were shut up, though not in the most regular way, their burials amounted from twenty to thirty, and sometimes thirty-four a day." Natural Hist. of Aleppo, p. 198.

In the first week of July, commencing the 5th, the Turkish burials decreased one-third, that is, they fell from 1249, the amount of the last weekly bill in June, to 833. But the declension of the plague in the second week was still more rapid; for the burials fell to 430.

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Aleppo.
July.

Towards the end of the third week in July, the distemper had abated so considerably, that it was represented by some as being in a manner entirely over. This, which was intended to encourage the Europeans to come out from confinement, failed in success; for accidents were as yet too frequent, and often too near the European quarter, to admit of suppression. Two or three of the Europeans, indeed, rode out for an airing this week; but the rest, as well as the Christians, of condition in the Judeda, remained close shut up.

In the mean while, the spirits of the people began to revive, and the streets and bazaars to be more frequented. In the preceding week several Jews of inferior rank, who had been shut up, ventured abroad, and in this a good many Christians came also out from confinement.

In the fourth week died Padre Carlo of the Terra Santa Convent. He had voluntarily devoted himself to an attendance on the infected ever since the spring of 1760, and had indeed exposed himself with uncommon resolution in the exercise of the most humane as well as most dangerous offices about the sick. I often had occasion to meet with him in the course of my visits, and have sometimes found him, when the ordinary attendants were not in the way, employed in supporting the sick in his arms, while they sat up in bed to take their medicines.

It may be remarked, that the decrease of the distemper in the last fortnight of July was proportionally more considerable among the Turks than among either the Christians or Jews. The difference

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ference might perhaps in some measure be owing to the indiscretion of such as had been shut up, and who immediately on coming abroad, from the notion of the distemper having ceased, went every where about with little or no precaution: nay, some there were so highly imprudent as to go to the public baths, although they knew at the same time it was the general practice to carry thither the convalescents from the plague.

After the middle of July, I heard of none of the sick who died in less than three days illness, but it was not observed at this period that a larger proportion of the infected recovered than had done in the first fortnight.

The weekly bills of mortality from the 5th of July to the 2d of August.

	1st Week.	2d Week.	3d Week.	4th Week.
Turkish Burials	833	430	300	183
Christian -	138	67	67	40
Jewish - -	27	9	12	9
	<hr/>	<hr/>	<hr/>	<hr/>
	998	506	379	232

At the time the European Consuls shut up in the month of May, the weekly bills of mortality amounted to 257, of which 40 were Christian burials. In the week immediately succeeding, when all the Europeans thought proper to shut up, the burials had encreased to 307. From this account it would appear, that the distemper was in a lower degree towards the end of July than for some time before the Franks entered into confinement, and consequently, were nothing else to be taken into consideration, there seemed to be the same reason for opening at this period, that was urged for not shutting up earlier in the spring.

But on the supposition of the plague being equally contagious in the spring and in the autumn, reasons might be assigned for the

the danger of infection being greater in the latter season than in the former; and further, that the risk in being exposed does by no means decrease in proportion to the diminution of the burials.

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July.

It was, however, in all probability less owing to minute investigation of this point, that the Europeans determined to remain still in confinement, than to the remembrance of what had happened the year before. It was thought more eligible to have patience for a few days longer, than to run the hazard of being again obliged to shut up a second time.

Tertian fevers began to be frequent in July, as also another fever, which was represented to me as being of the malignant kind, distinct from the plague; but which, on visiting the sick upon my coming out of confinement, I found to be one of the irregular species allied to the tertian tribe.

As to the plague, it was very much diminished. Some accidents came to be known the first week of August, which had happened the week before; but no fresh instances were heard of, and most of the Christians of the Judeda came abroad from confinement.

August.

In the second week the distemper was reduced so low, that in the stile of the Levant it might have been said to be over: nevertheless accidents came to be publicly known, which showed it had not as yet absolutely ceased.

The English gentlemen, one or two excepted, opened their houses entirely in this week. The Consul opened a few days after: but the French Consul, with the greater part of that nation, remained shut up till the 20th.

Through the latter fortnight of August, the plague daily diminished. The burials were fewer, by the bills of mortality,

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August. The weekly bills of mortality from the 2d to the 30th of August.

	1st Week.	2d Week.	3d Week.	4th Week.
Turkish Burials	107	89	60	58
Christian -	26	17	10	10
Jewish - -	3	6	1	0
	<hr/> 136	<hr/> 112	<hr/> 71	<hr/> 68

It was currently reported in the European quarter of the city, about the beginning of September, that there had been no pestilential accidents whatever for many days. In other parts the Turks talked less confidently on the subject, and were nearer the truth when they asserted, that though the plague had not totally ceased, it was but very rarely met with.

The fever before-mentioned had not only spread, but was become more fatal; and being attended by violent vomiting and other formidable symptoms, was sometimes mistaken for the plague. The detection of errors of this kind furnished, as usual, a plausible argument against other reports, which in the first week of September happened really to be true. The Turk washers of the dead assured me, that on most days they still met with infected bodies; which I was more inclined to believe from what I had occasion to see myself.

It should be remarked here, that from the middle of August a very small proportion of the infected recovered; which was a proof, compared with the state of the burials, of the decrease of the plague, as a share of the mortality in that period was to be attributed to the autumnal diseases.

In

In the last fortnight of September (ending the 26th) I had occasion to meet only with two pestilential accidents, one of which was a Turk who had been seized on the 5th of the month; the other, a woman who was taken on the 16th. Several others were talked of, but none after the 20th of September, which I saw reason to think were true.

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Sept.

The weekly bills of mortality from the 30th of August to the 27th of September.

	1st Week.	2d Week.	3d Week.	4th Week.
Turkish Burials	56	35	36	39
Christian - -	9	7	10	29
Jewish - - -	1	0	2	0
	<hr/> 66	<hr/> 42	<hr/> 48	<hr/> 68

The increase of the Christian burials observable in the last week of September, might, perhaps, be partly owing to the plague, although I happened to see none of the infected. In the week immediately following, the burials again were reduced to nine or ten, in which state they continued till November. The weekly Turkish burials continued also as in the fourth week of September. After the 10th of November, the autumnal diseases abating, the burials universally decreased.

Thus ended the plague at Aleppo. It had begun to abate early in July; declined rapidly after the middle of that month; and towards the middle of August was so much diminished, that it was said to have then finished. It continued, however, as hath been shown, till the third week of September, and, still decreasing, towards the latter end of that month totally disappeared.

I was indeed to place the termination of the plague in the latter part of September, from the not having met, in an extensive practice among the natives of all ranks, with any pestilential

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ventual accidents during the three subsequent months. There were not wanting, however, many reports of persons dying of the plague, and some of them circulated with great confidence. I was at the pains to make particular enquiry into several of the instances that had been specified, and in respect of all such, found the reports had arisen from a mistake in the nature of the disease. That other reports arose from the like cause, I more readily believed, because the buriers of the dead assured me, they met no longer with dead bodies which bore the marks of infection.

But it required some time to free the people of Aleppo entirely from their fears. Through the whole of the winter, sudden deaths were sometimes regarded as suspicious, and in most acute diseases anomalous symptoms were apt to raise alarm. Apprehensions of this kind subsisted in some degree till the month of March, in the following year, when perfect tranquillity was restored to the city.

From the foregoing narrative, it would appear that the progress of the plague in its commencement is much the same in the several parts of the Levant, as in the cities of Europe. That is, it advances slowly, fluctuating, perhaps, for two or three weeks; that the disease itself, though, at that period it generally proves fatal, is very often unattended by its characteristic eruptions; and that the attendants on the sick often escape infection. These last two circumstances are productive of serious consequences; the nature of the distemper comes to be doubted and disputed, and the means of preservation, in waiting the decision, are procrastinated till too late.

When the commercial cities of Europe have happened to be visited by the plague, it has been too often the practice to conceal the distemper, under different names, as long as possible. In the Levant this practice is universal; and indeed, in those countries

countries there are fewer reasons for making an early discovery. The bulk of the people, who are restrained by religious prejudices from employing the European methods of preservation, can reap no advantage from such a discovery; and it becomes the general interest of the natives to conceal every thing from the Europeans that might hasten their shutting up, or prolong their confinement. Examples of this kind have been repeatedly given in the narrative; as they concern no less speculations on quarantine and bills of health in Britain, than the safety of Europeans established in Turkey.

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The progress of the plague, from the time it manifestly increases, is nearly similar in different places of the Levant, though in the periods of its termination a considerable variation is remarked, not only in different places, but in the same place in different years. In all, the increase and decrease of the distemper are always rapid, and in general it terminates earlier at Grand Cairo, than on the coast of Syria or at Aleppo:

It is remarkable both in Syria and Cyprus, that in the latter part of the autumn, in the winter, and early in the spring, although the plague had either ceased or greatly declined in the towns, it sometimes continued its ravages in the villages in the adjacent plains, as well as in the mountains, and that even during severe frost.

The villages appeared to suffer in a singular degree, owing, perhaps, to the structure of the huts and cottages, which are small, with few or no windows, and stand crowded together. In this they resemble the Keisarias within the city, which are inhabited by the lower class of people, and in which the contagion spreads also with great fury.

The inhabitants of the city, of the same class, but who live in districts where the houses are less connected, suffered more
than

BOOK I. { than the middling class, possessing more airy habitations, but less than the keisarias. The people of rank, or in higher offices, notwithstanding the promiscuous crowds frequenting their palaces, suffered least of all. Neither the Governor of the city, the Cady, nor the Nakeeb, and very few of the Agas of superior rank, were themselves infected, though the plague had penetrated into most of their harems, and many of the pages and other attendants without doors, were carried off by it. In these great harems, however, the contagion seldom spread much; of, perhaps, above forty females, not more than four or five being infected. When particular circumstances are attended to, what has been now said will appear less surprising.

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The seraglios, or palaces of the great men, are grand, spacious buildings, constructed on a plan which, in general, is well adapted to the climate. The harem, or quarter allotted to the women, consists of a large area, partly paved with marble and partly decorated with shrubberies, flower plots, and fountains. The area is surrounded by the ladies apartments, which, for the most part, have lofty ceilings, are kept extremely neat, and by means of large doors and windows towards the area, and ventilators from above, are sufficiently cool and airy. On the south side of the area, there is an open recess or alcove, consisting of one arch, deep, wide, extremely lofty, and, by an awning above, protected from the sun. Jets, spouting from the centre of the alcove, or from a fountain in front, render this a pleasing retreat for the ladies in the sultry hours of the summer, or for the master and mistress of the family when sick or indisposed.

The rooms of state are more spacious than those of the harem, and being built over the offices, are a considerable height from the ground. The approach is by a broad and open stair-case to a spacious colonade, usually facing the north or the west, protected from the sun by a shed projecting from the roof, and occasionally by large curtains suspended between the pillars of the

the colonade. By this means, and by the windows on each side of the apartments and kiosks, the whole is well ventilated.

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In one of the largest of these rooms, the great men in office sit several hours of the day for the despatch of business, and the receiving visits. The master of the house is placed at the upper corner of the divan, never resigning his station, except to a person of superior dignity. One of equal rank takes his place in the opposite corner, while the rest of the visitors are seated on the lower part of the divan, at a respectful distance from both. The inferior officers, and the pages in waiting, are ranged in front of the divan, and only advance when their service requires, returning immediately again to their station.

The number of people assembled at the seraglios on certain days of the week is considerable, but they wait in the gallery, or in the outer rooms, till their turn of admittance, and as soon as their business is despatched, give place to others in succession; so that the chamber of audience is seldom or ever crowded.

In respect to the harem, besides the favourable arrangement of the apartments, something might be ascribed to the precaution often used by the ladies, in imitation of the Christians, whose timidity they were formerly wont to deride. They avoided entering the infected chamber, and committed the care of the sick to the slaves, or to Arab women hired on purpose.

It was remarked before, that of all people the Jews appear to have the strongest dread of the plague, a circumstance in one light rather fortunate, no places being more favourable to its propagation than the habitations of the lower class of that nation. The houses are small, or, if large, the different apartments are crowded with different families. Many of the houses are more than a story below the level of the street, in a condition half
ruinous

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ruinous, dirty in the extreme, damp and badly aired, from the nature of the situation ; and the wretched inhabitants are cloathed in rags. When one of them is taken ill, and known to have the plague, he is immediately abandoned to the care of an attendant, and the rest of the family seek refuge, if possible, at some distance. The families lodged in the other apartments, all not having it in their power to fly, are obliged to remain, but avoid approaching the chamber of the sick, and restrain their children from going into the court-yard. Thus pent up, they suffer all the inconveniencies of the hot season in the midst of perpetual dread, till at length, what often happens, they also are attacked with the distemper. It was not without horror I descended into these dreary mansions. The sick, it is true, generally found one of their kindred to attend them, an advantage they sometimes had over the more opulent Turks and Christians ; but the mouldering walls and the sordid mattresses denoted want and misery ; while the other apartments, at a few paces distant, were filled with persons, who presented themselves at the doors and windows, as I passed, with terror and despair portrayed in their countenances. This last circumstance was not observed in the keisarias of the Arabs, where, whether from dictates of religion, or different notions of the danger they stood exposed to, the people, in similar situations, maintained a calm intrepidity that might have inspired those with courage who, as better informed philosophers, were apt to commiserate and shudder at the popular ignorance.

Several instances have been mentioned in the Journals of persons infected in houses shut up. When such happened in the beginning of the confinement, it was where shutting up had been too long deferred ; and, in all probability, the infection had been contracted before confinement. When it happened at a period more advanced, it sooner or later appeared that irregularities had been committed, inconsistent with the rules of shutting up. Among the Europeans (the one in the Jesuit Convent excepted)

excepted) as well as in the houses of the native Christians of the better class, no accidents of that kind were heard of.

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The consequences of delaying too long to shut up, and of the coming out too soon from confinement, have been shown by instances in the course of the foregoing narrative, and may stand as admonitory examples to those whom it may concern, of the imprudence of procrastination and temerity, on occasions wherein health is so nearly interested, and the most undaunted courage cannot protect us.

The priests of the several nations, appointed to attend the infected, escaped the infection the first and second years, but most of them died the third. In the same year also several of the grave-diggers and washers of the dead, who had resisted since the beginning of the season, perished. It is the more remarkable that many of these accidents happened in the decline of the plague.

The Europeans, more especially in the year 1762, were, in general, scrupulously attentive to the regulations of shutting up. I myself was led into what may appear a violation of those strict precautions which I had often, in the strongest terms, recommended to others.

The custom-house khane is one of the largest in the city; and, in like manner as the others inhabited by the Europeans, is surrounded by buildings, consisting of a ground-floor and one story, with flat terraced roofs. The ground-floor serves for magazines and chambers for the native merchants, whose dwelling-houses are in different quarters of the town. The numerous apartments above are sub-divided into large houses for the accommodation of the Europeans of different nations. The gentleman with whom I shut up possess one of those houses, on the west side of the square.

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Many had applied daily for my advice, during the quarantine, at my own house; and, soon after my removal to the khane, the number increased so considerably, that during four or five hours in the forenoon, and from four in the afternoon till sunset when the gate was shut, there was a constant succession of people under the windows. After the middle of June, when a much larger proportion of the sick recovered than before, the croud was greatly increased by convalescents who had occasion for little more than external remedies, which being dispensed gratis to all who applied, people were encouraged to come from the remote suburbs, and even from the villages. Thus it frequently happened, that of three or four hundred who came in the course of the afternoon, more than one half remained in the khane together at the same time⁶; it being impracticable to despatch them so fast as they wished⁷,

This assembly presented interesting scenes to a spectator, who conceived his own situation secure from danger. Some in whom the distemper had not as yet fully declared itself, suffered slight symptoms, but were tortured by doubt and apprehension; others were so ill as to be unable to walk unsupported; and some who had got over the dangerous stage of the disease, though ill able to walk about, were under the necessity, from want of assistants, to come either for their own medicines, or perhaps on account

⁶ A Carmelite Friar, from the window of a convent contiguous, frequently amused himself by counting them.

⁷ The detention of those who applied only for external remedies, arose from my desire of being more particularly informed of the former progress of the Eruptions, and whether the patient had ever been infected before. The taking down these circumstances, together with the sex, age, &c. required time.

The examination of such as were actually sick, or of the reports of assistants, where the sick were unable to come themselves, occasioned still a longer detention.

The number standing in my sick list in 1762, from the time of shutting up till the beginning of August, amounted nearly to three thousand.

of

of others who had fallen ill in the family. It was a spectacle which presenting new and various forms of human distress, excited sympathy and compassion with irresistible power. But nothing was more affecting than to see a mother, as yet in blooming health, with tears and a look of anxious entreaty, imploring advice for the child in her arms; and, while she pressed the infected infant to her bosom, seemed in the fond caresses she received in return, regardless of her own life, to suck in the contagious poison with her lips.

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The assembly in the khane did not, however, consist solely of objects moving compassion. The assistants who came for medicines made up a considerable share, and among those were generally some who amused the impatience of the croud in waiting, with facetious stories, or with the news of the quarter they came from. There were besides many convalescents who continued only to suffer slightly from the eruptions, and, like persons lately escaped from eminent danger, talked in a manner to infuse courage into the despondent.

My station at the window, which was not more than fifteen feet from the pavement, might perhaps have been regarded as not beyond the influence of an infected atmosphere arising from the bodies of a multitude of persons who had the plague upon them, or from the cloaths of such as were employed about the sick. This consideration, at length, determined me to talk on the subject with the gentlemen of the house. They had never dropped a hint of apprehension, nor should I probably have thought of danger had I been alone. But the mere possibility of any thing happening by which others might be involved, who had not the same motive of curiosity with myself for incurring risk, gave me uneasiness⁸. I found my hosts, however, after considering all circumstances, more inclined to trust their future

⁸ I certainly did not apprehend any great degree of danger; but believe, on any other occasion of the like kind, I should have preferred shutting up by myself: at least I thought so at that time.

BOOK I. safety to a continuance of the precautions employed from the beginning, than to render it less precarious by withdrawing from the distressed the small share of assistance placed in our power to administer, and claimed by humanity. A determination was taken in consequence, and fortunately followed by no harm: a fact, it may be sufficient to remark here, without entering into the discussion, whether the determination was prudentially right, or how far it was consistent with the established rules of shutting up.

C H A P. VII.

Progress of the Plague in various Parts under the Government of Aleppo, as also at Urfa and Maraash, to the North.

THE plague, in the year 1762, raged in several towns besides Aleppo, but not having received accounts from those parts, on the accuracy of which I myself could rely, I shall not presume to enter into a particular detail of its progress.

It has been mentioned before, that in the spring of 1761, the plague had not yet reached the villages and towns to the north of Aleppo. They were not attacked, according to our intelligence, till some considerable time after.

It has also been observed, that the plague was at Antioch in the year 1761. It broke out at Byland in the latter part of the autumn; and, sometime in October, showed itself at Scanderoon, where it subsisted till the beginning of June in the following year.

Urfa. In the year 1762, the plague raged furiously at Urfa. The Bashaw of that city, together with a great number of his pages and

and soldiers, died in the month of July. The villages in the neighbourhood of Urfa were in a manner depopulated.

CHAP.
VII.

1762.

In the month of July, the plague, by my advices, had not yet ceased at Byafs, nor at Adena. In the latter of these towns, and in the villages adjacent, the mortality was said to have amounted to ninety-five thousand; but in this computation there must be some allowance made for exaggeration.

Byafs
and
Adena.

With regard to one of the towns, situated to the northward of Aleppo, that had received the contagion in the year 1761, some particulars came to my knowledge, a long while after, which deserve to be recorded.

Maraash, is a place of some trade, distant between two and three days journey from Aleppo, to which city it sends yearly, among other commodities, a considerable quantity of Scammony collected from the neighbouring mountains¹. The plague made its first appearance at this place in the spring 1761, but did not spread much, and ceased in the autumn. It appeared again next year early in the summer, spread more, and continued in some degree all the winter.

In the year 1763, it encreased in the summer, though not so much as in the preceding year. In the year 1764, it spread still less, but observed nearly the same progress; that is, was not at all, or very little, heard of in the winter. In the year 1765, the distemper raged at Maraash with more violence than ever, and extending to the adjacent villages, made terrible havock².

¹ Medical Observations and Enquiries, Vol. I. P. 17, &c.

² I received the above account from a Christian merchant, who came to Aleppo in the autumn 1765, having, on account of the plague, left Maraash where he had resided the greater part of the four preceding years. In the same year several natives of Aleppo died at Maraash, and, among others, the brother of Georgios Antonios, Bite Baboojee.

BOOK

1.

1762.

Maraash

The continuance of the plague so much longer at Maraash than in any of the towns in Syria, was a singular fact; nor was it less remarkable that so little of the matter should be known at Aleppo, notwithstanding the constant intercourse subsisting between the two towns. There were indeed from time to time vague reports of the plague's remaining still in the mountains to the north: but they met with little credit, and were soon suppressed. On the return of several Aleppo merchants who had been settled at Maraash, and in the summer 1765, abandoned the place on account of the plague, the affair came at last to be more talked of at Aleppo.

A
T R E A T I S E
O F T H E
P L A G U E.

B O O K II.
Medical Account of the Plague.

C H A P. I.
General Remarks on the Description of the Plague.

CHAP.
I.
}

FROM the writings of physicians, who in different ages and in various parts of Europe had practised in the plague, may be collected a general description of the disease, to which little or nothing can be added. The symptoms peculiar to it have been faithfully distinguished and enumerated; but the concurrence, progress, and succession of these symptoms under the various forms which are met with in individual cases, have seldom been represented with the same graphical correctness to be found in the description of the varieties of the small-pox, or of other eruptive fevers.

This may readily be accounted for from several causes. The dread of infection has proved no small obstacle to that close inspection bestowed on common distempers. The desertion of physicians

BOOK
II.

ficians and furgeons, by throwing the dangerous labour into a few hands, rendered it next to impossible for those who continued to expose themselves, to pay the same attention, as at other times, to a numerous sick. In the incessant hurry of employment, practitioners were under the necessity of trusting much to memory; they had it not in their power to write always at the instant, nor to visit so frequently as in other epidemic diseases. It often happened that the sick were not in a condition to give a distinct account of themselves, while, from the timorous attendants, it was difficult to learn precisely what passed in the intervals of visiting; to all which it may be added, that numbers of the medical assistants have fallen victims, and the fruits of their experience have perished with them.

These considerations, while they acquit observers of the imputation of negligence, may serve also to account for the defective narrative so often met with in medical journals of the disease; and though, to this general remark, some exceptions must be admitted^{*}, the causes assigned above will be found to have had powerful influence. In the year 1720 and 1721, the Montpellier physicians sent by the court to Marseilles, in the midst of advantages unknown to former times, own that it was with extreme difficulty they were able to keep journals of the few pestilential cases with which they have favoured the public.

The irregularity of the disease has been remarked by all who, from their own experience, have written on the plague; and, at first, struck me so forcibly, that I conceived it to be an inseparable attribute. The varying forms of a distemper, so sudden in its transitions, seemed ill-suited to methodical arrangement. But, in proportion, as I became more conversant with the sick, this irregularity sensibly lessened. A correspondence, in the series of leading symptoms, was discoverable, in many cases, amid the

^{*} Bindius *Loemographia Centumcellensis*, Romæ, 1658. Forestus, &c.

confused combination which before seemed to belong indiscriminately to almost every form of the disease. Of this I became much more sensible after comparing a considerable number of journals, and reviewing many loose memoranda hastily set down at the time; and thence have been induced to attempt a methodical arrangement of my observations; which, defective as the method may be, or in other respects liable to objection, seemed to be the most eligible way of conveying an idea of the varieties I wished to describe.

The varieties to be arranged under separate classes, are distinguished by the concurrence of the principal symptoms, and, sometimes, by the issue of the disease. The formidable pestilential symptoms more constantly attendant, where the disease terminates fatally, are often also met with in the less destructive forms of the plague; but, for the most part, stand conjoined with others, and vary in their course and alternations. Hence the danger denoted by those symptoms comes to be rated rather from their succession, than from their apparent violence. The comatous disposition which comes on the first night, and continues the second day, denotes more danger than where the same symptom, in a higher degree, comes on in a more advanced stage, and abates with the exacerbation.

The class, to which a particular case ought to be referred, can seldom be determined at the beginning, or before two or more days have elapsed. Indeed, except where the disease by a rapid progress terminates fatally the second or third day, a judgment can rarely be formed sooner than the fourth: very often not till some days later. It may also be remarked, that the distinctive character of the classes being founded on the progress and concurrence of symptoms, which separately are in some degree common to all the varieties, some of these classes will necessarily border so closely, that it will often be difficult, if not impossible,

sible, to decide to which the ambiguous case ought to be referred.

Extensive practice and sedulous observations will diminish, if not remove, this difficulty; experience has shown me that certain forms of the plague are less irregular than they at first appeared to be, and I have no doubt that time and wider practice among the infected, might have enabled me to correct my arrangement, and to lessen the number of cases now deemed anomalous.

The utility of methodical arrangement arising from its perspicuity, must greatly depend on future improvements in the history of the plague in its spontaneous or natural course; and in this view the Mohammedan countries, where the disease frequently recurs, and is little interrupted by powerful remedies, presents an ample field for observation. But though the difference of police, as well as of popular opinions prevalent in the Levant, prevent, in some measure, the desertion and internal disorder which, in Christendom, add greatly to the calamities of great cities, in the time of a plague, still the physician practising in that country, at least at Aleppo, finds much difficulty in keeping regular journals of pestilential cases.

The Mohammedans, who compose by much the majority of inhabitants, conceive that medicines, especially European medicines, are of little service in the plague; and they are in all respects less attentive to the sick than in other distempers, where they believe attention to be of more consequence: nor are they altogether exempt from the dread of infection, which, operating on the minds of assistants, renders them less vigilant than where they have nothing to fear on their own account.

Among the Christian and Jewish natives, the dread of infection prevails universally; and the assistants are not only less vigilant, but their reports must be received with unusual diffidence; it
being

being not uncommon to endeavour, by a fictitious account of incidents, to conceal their neglect, in order to gain unmerited credit for watchful attendance. This more particularly happens where the physician, prescribing on the report of others, does not visit himself; or, where there happens to be no confidential person in the family to superintend the nurses.

To the impediments already enumerated, it may be added, that popular prejudice excludes certain remedies altogether, condemns others as improper in particular stages of the disease, and by confining the *Materia Medica* to a few drugs of little efficacy, very often reduces the physician to the necessity of remaining a passive spectator of what passes. The remedies ordered are some times negligently administered, at other times, when the assistants happen to be much alarmed by appearances, are not given at all; and where the case is supposed to be desperate, by desisting from bringing further reports, the assistants leave the physician in ignorance of the event, and the journal of course breaks off abruptly, perhaps, at the most interesting period.

Were there not numerous exceptions to this general representation of matters in Syria, an European physician could have little inducement voluntarily to expose himself to danger, with so unpromising a prospect of being of service in the way of his profession. But it is no more than justice to declare, that I often met, more especially in the middle and lower ranks, with instances of that affectionate attachment, which sets personal danger at defiance; and I am persuaded, it will at all times be in the power of a resolute practitioner, by his own conduct and example, to add greatly to the number of similar instances. At the same time it is by a resolute inspection only, that the medical history of pestilential varieties can be improved, and where remedies have been given that their virtues can be estimated. On this head I beg leave to remark further, that in order to encourage application for advice, the physician who, in Syria, devotes

BOOK I. himself to attendance on the infected, will do well in relinquishing all pecuniary emoluments of practice, expecting his reward in the conscious satisfaction attending every endeavour to alleviate human distress. He will approach the infected with a degree of fortitude, that lucrative motives could never inspire; and will feel himself raised above the suspicion of any illiberal bias averting his attention from the indigent orders of society, the most populous and most subject to the distemper.

The plague, as defined by modern physicians, is generally supposed to be produced by one specific contagion, variously modified by the epidemical influence of the season, by constitutional predispositions, or other incidental causes. These several modifications are not, however, considered as constituting so many distinct species, but only varieties, and it is a principal object of methodical arrangement, by divesting these varieties of adventitious symptoms, to render them more precisely subjects of comparison.

When it was remarked above, that a correspondence in the concurrence of certain symptoms was unexpectedly discovered in a number of different cases, sufficient to encourage their distribution into classes, in imitation of the plan of the French physicians at Marseilles², no contradiction was intended to the general opinion of the irregular nature of the disease, so justly confirmed

² *Traité de la Peste*, p. 223.

I should willingly have adopted the classes of the Montpellier physicians, had I not met with several discouragements in the attempt. The third class, in particular, suited none of my cases. Upon the whole, considering arrangement as merely arbitrary, I thought it better to chuse that from under which I could convey my own description with most facility and exactness.

The account of the plague at Marseilles by M. Bertrand, (*Traité*, &c. p. 371) I regard as a good one, but think his distinction of two sorts too general. There is another division in the same work, p. 212, by M. Emeric of Aix, who constitutes three degrees of malignity.

by

by physicians of more extensive experience than I pretend to. CHAP.
On the contrary, besides difficulties already hinted as resulting I:
from that irregularity, I met with so many cases disqualified for
the classes, as rendered it necessary to allot one for them under
the general head of anomalous; conceiving it better to leave an
opening for the reception of particular cases, than to venture
upon an abstract description of deviations from the more common
course of the disease, which, in attempting conciseness, might
happen to exclude circumstances too hastily deemed immaterial.
There is little probability of this anomalous class being entirely
disencumbered of subjects, but the number may probably be di-
minished, when future observations and more complete diaries
of cases shall have improved the history of pestilential varieties;
and a better method of arrangement shall have invented classes
for their reception.

It was partly this consideration which induced me to insert in
the appendix, a century of pestilential cases, selected from my
journals, though presented in a state far less complete than I could
have wished. The observations, as far as I am acquainted with
myself, have been made unbiassed by any adopted theory;
and the cases selected, it will be perceived, have not been pro-
duced as vouchers of a practice extraordinary successful, or of
the efficacy of favourite remedies. In a great part of them, Na-
ture was left to take her course uninterruptedly. In others,
bleeding and emetics at the beginning excepted, the remedies
administered were of that kind which have no claim to high
virtues; and several instances are given wherein, though evacu-
ations were omitted, little or no material difference could be dis-
covered in the progress of the symptoms.

In many of the pestilential cases recorded in books, the re-
medies employed have been suspected of altering the natural
course of the symptoms, and even of producing some symptoms

BOOK II. not incident to the disease³. How far such imputations are well grounded, will best be determined by comparing analogous cases where the whole was committed to the conduct of Nature, and, as already observed, such are most likely to be collected in a country where violent remedies are seldom admitted. The cases or journals now exhibited, defective as they are, will furnish some materials for this purpose: they may serve also to illustrate the classes; and particular facts may happen to suggest useful hints to others, which have not occurred to me.

To establish some foundation for a more exact estimate of the comparative merit of various methods of treatment which have been adopted in the cure of the plague, is another object of methodical arrangement.

Of the pestilential varieties, some are naturally attended with much less danger than others. This truth so obvious, has in general been too slightly adverted to. From the time that the plague invaded Aleppo in the year 1760, till its final determination in 1762, the disease was always regarded as dangerous; but the degree of danger was very different at different stages of the season⁴. At the beginning, few or none of the infected escaped death; as the season advanced, a certain proportion of the sick recovered; and in its state and decline, the proportion of such as recovered was greater than ever.

This is sufficient to show the subservience of methodical arrangement to practice; and the importance of marking precisely the stage of the pestilential season, as well as the stage and circumstances of the case, when remedies were applied. To the neglect of this precision it is owing that so much of the medical obser-

³ *Traité de la Peste*, p. 2. Obs. p. 261.

⁴ This circumstance was not peculiar to Aleppo, but has been observed of several plagues. *Traité de la Peste*, p. 1. 369, 428.

vation in the plague is of less use, in application, than it otherwise might have been. It will often be found that writers have contented themselves with giving the aggregate of observations made in the course of their practice, without regard to dates, as if the plague was invariably or equally destructive at all periods; while others have laboured indefatigably to accommodate their observations to some favourite system⁵.

CHAP.
I.

The pestilential cases or diaries have been arranged in chronological series, in preference to the bringing those of different years together, which are connected with the respective classes; and reference is made, by means of the number affixed to each case respectively. But another motive for placing the cases in regular sequence, was to preserve them as materials, independent of any arrangement whatever; for I am far from being so partial to the method I have adopted, as to think a better may not be invented hereafter, nor that others may not discover in my distribution, what I conceive may be objected to, that of the Montpellier physicians in the year 1720, that the cases intended to elucidate the classes, have in several instances been misplaced⁶. Errors, however, of this kind do not affect the truth of the facts narrated, and with this distinction in view, it has been my wish all along to keep matters of fact carefully separate from all opinions or conjectures occasionally arising from them; so that whatever may befall the latter, the former may remain fit subjects for others to investigate, employ, or methodize, with unrestrained freedom, and, perhaps, better success.

⁵ The conduct of several physicians in France in the years 1720 and 1721, affords remarkable instances of the power of prepossession in favour of an hypothesis. See *Traité de la Peste*, Obs. 1. p. 244. Obs. 2. p. 246, 260, 208, 308, 313, 317, &c.

⁶ Upon an attentive perusal of the pestilential cases produced by Messrs. Chicoyneau and Verney to illustrate their classes, very few of them appeared to me to be appositely applied. See Obs. 1. Cl. i. Obs. 1. Cl. ii. p. 254. Obs. 2. p. 258. Cl. iii. Obs. 1. p. 268. Cl. iv. Obs. 1. p. 282. Obs. 2. p. 287. Obs. 3. p. 293. Obs. 4.

C H A P. II.

Of the Symptoms of the Plague.

O F symptoms enumerated by writers on the plague, there are some which I had no opportunity of observing^{*}; some differed a little in their appearance; and there are others which the plague claims in common with other febrile disorders, but are of little or no use in discriminating the varieties. These last are, in general, passed slightly over, even in the journals; the first, which I conceive to be established upon unquestionable authority, hint an admonition to confine myself to a description drawn purely from my own observations; only at the bottom of the page occasionally subjoining remarks on the descriptions of former writers, (whom I have consulted since reviewing my papers) where I think they may serve to supply deficiencies in my own.

In order to avoid interruption in the description of the classes, I shall premise a few remarks on those symptoms separately, which in concurrence and series are supposed to form the several varieties. The pestilential Eruptions being reserved for another place, the symptoms here alluded to are the following:—Fever, Delirium, Coma, Impediment or loss of Speech, Deafness, Mud-diness of the Eyes, White Tongue, State of the Pulse, Respiration, Anxiety, Pain at the Heart, Inquietude, Debility, Fainting, Convulsion, Appearances of the Urine, Perspiration, Vomiting, Looseness, and Hemorrhage; to which may be added, the usual Effects of Pregnancy, when conjoined with the plague.—Of these in order.

^{*} Bloody urine, fetid sweats, sweats of various colour, vomiting of blood, sneezing, &c.

FEVER. A fever was a constant attendant at one stage or other of the plague, with very few exceptions; but in different subjects varied greatly in degree and continuance, as well as in its concomitant symptoms. It was usually preceded by a sense of weariness, a slight shivering, and a confusion, rather than pain, in the head², the head-ach seldom rising high till the advance of the hot fit. The cold stage was, in general, of short duration, and seldom attended with thirst, or so much anxiety, as the same stage in tertian fevers; but the changes in the succeeding hot fit were more sudden, anomalous, and alarming. A nausea, sickness, and vomiting frequently attended from the beginning; but in a large proportion of the sick, and in cases too which terminated fatally, these symptoms were absent.

CHAP.
II.
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In many cases the access differed little from that of ordinary fevers, so that except from collateral circumstances (the reigning epidemic, the patient having been in the way of infection, and the like) a judgment could not well be formed sooner than the second night, unless where buboes or carbuncles were protruded within the first twenty-four hours. These removed all doubt of the nature of the fever, but furnished no sure prognostic of the issue of the disease.

The fever usually declined in the morning of the second day, and sometimes, but seldom, a second flighter cold fit preceded the next exacerbation. It still more rarely happened, that the cold and hot fits returned regularly as in remittent fevers, for several days successively: irregular coldness in the extremities was more common³. Instances of the plague supervening in intermittent fevers were very rare⁴.

² Case LVI. LXIII. Appendix.

³ Appendix, Case XLI. LXXI. LXXXIX. CL.

⁴ Case XLII.

BOOK II. The pestilential fever, in its most continued state, rose and declined several times in the course of twenty-four hours, and the changes from better to worse, and *vice versa*, were more sudden and various than in other fevers. The exacerbations were irregular in the time of their return, in their violence and duration, and the intermediate calms or remissions were variously clear or obscure; but the mornings were generally calm, the nights disturbed. In the midst of these changes the disease advanced with wonderful rapidity, insomuch that the patient on the second or third day was often in point of debility, disorder of the senses and of the vital functions, reduced, in appearance, to the condition of one in the last stage of a malignant fever: yet to this desperate state would succeed a remission, in which his senses, and intellectual faculties were restored, the vital functions went on calmly, and all, but weakness, seemed to have vanished like a dream.

Remissions of this kind early in the disease, or when not preceded by a sweat, were often short and fallacious; but when induced by a sweat on the third day or later, and of some hours continuance, they gave some hopes of a happy issue, especially if the pulse did not sink, and the head was tolerably clear. The danger of the succeeding exacerbations was rated rather from concomitant symptoms than from the violence of the fever, as will be explained more particularly under the respective classes.

DELIRIUM. The delirium, in the plague, seldom rose to so high a degree of phrensy as in some other fevers. It sometimes came on the first night, but, in general, not before the second. It rose highest in the febrile exacerbations; lessening in the remissions into a rambling or confusion of intellects, and frequently went off entirely for several hours in the day-time, but returned with the evening exacerbation.

COMA.

COMA. The comatous disposition sometimes attended from the access⁵, sometimes came on in the advance of the disease, and very often alternated with the delirium. It was, in general, a more dangerous symptom than the delirium, but most dangerous when it came on early, and did not abate in the remissions. It was for the most part, except sometimes in the nocturnal exacerbations, not difficult to rouse the sick from their lethargy, by shaking their arm, or speaking loud in their ear⁶. When roused they answered rationally at first, but if teased by repeated questions, they gave marks of impatience at the being disturbed, denied the having been asleep, and as soon as left to themselves relapsed into slumber.

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LOSS OF SPEECH, FALTERING, TREMOR OF THE TONGUE. Loss of speech was not an uncommon symptom. It sometimes came on the first or second night, and was only reckoned portentous where it continued long, or was conjoined with other bad symptoms⁷. Faltering and trembling of the tongue, except in cases of extraordinary debility, seldom appeared earlier than the third day⁸. An impediment of speech sometimes continued for several months after the patient's recovery.

DEAFNESS. The sense of hearing was frequently impaired, but absolute deafness, a symptom very common in the advanced stages of epidemic fevers in Syria, was seldom observed.

MUDDY EYES⁹. This change in the eyes was extremely remarkable. It sometimes was visible from the first day, but more commonly

⁵ Case C.

⁶ Case VIII. XXVI.

⁷ Case VII. XXII. XXIV. XLIV. XLVII.

⁸ Case XXVIII. LIII.

⁹ Case I. II. III. VII. IX. XII. XIII. XVI. XVII.

BOOK
II.

from the second or third, and remained till some favourable turn of the disease took place. It resembled somewhat the dull fixed eye observable in the last stages of malignant fevers, but the dullness was different, muddiness and lustre being strangely blended together¹⁰. It continued with little alteration in the remissions, and even

¹⁰ The alteration in the eyes and change of countenance has been remarked by many writers, and variously described; but none of the descriptions I have met with exactly express the appearance itself, and I dare not flatter myself with the hopes of being more successful than others.

Forestus, lib. vi. V. 1. p. 209. describes it thus: "Nonnullis & ferox vultus qualis temulentorum esse solet, incertus atque turbidus." Goclenius Loimographia, p. 42 (An. 1613) terms it, "Aspectus torvus; aspectus truculentus." Diemerbroeck, cap. vii. "Visus turbidus," which in the *Traité de la Peste*, p. 30, is rendered, "Le regard étoit égaré."

M. Chicoyneau, *Traité de la Peste*, p. 224, "La vue fixe, ternie, égarée, marquant l'épouvante & le désespoir;" which in the English translation is rendered, "The sight dull, fixed, wandering, expressing fearfulness and despair." But in another place of the *Traité*, p. 37, it seems to be expressed more accurately, "Les yeux étoient ternis, le regard fixe & égaré," which if translated, "The eyes muddied, the looks fixed and wild," would I think come nearer the truth.

In the above work the same appearance is mentioned by other physicians with some variation of expression, p. 215. "Les yeux troubles, p. 362. "Les yeux s'éteignent dans les uns & deviennent languissans, vifs & très enflammés dans les autres," p. 413. "Les yeux étincellans ou entièrement mornes."

It should have been remarked before, that M. Chicoyneau in his description of his second class, where the febrile symptoms rose high, represents the eyes, "Rougeâtres fixes, égarées, étincellans." M. Dedier marks the difference distinctly, "Les yeux éteints, les extrémités froides." "Les yeux étincelans une chaleur brûlante." "Les yeux sont enfoncés s'appétissent, sortent, de la tête, sont plus ouverts que de coutume, quelquefois étincelans, & sont enflammés, p. 590.

M. Bertrand, "Les plus malades ont les yeux vifs & étincelans même dans les plus grandes foiblesse & le regard affreux à peu près comme les hydrophobiques, & ces yeux étincellans étoient toujours d'un mauvais augure. C'est sans doute par là que quelques chirurgiens qui ont fréquenté le Levant, se vantent de connoître de trente pas de loin si un homme est attaqué de Peste, p. 373."

even where the patient appeared sensible and composed. It did not increase in the febrile exacerbations, but the eyes acquired a redness, that added wildness to the look; which abating or going off in the remissions, the muddiness remained behind. It was this which contributed chiefly in composing that confusion of countenance which I shall not attempt to describe, but which enabled me, after some practice, to pronounce with tolerable certainty, whether the disease was or was not the plague, though not independently of other symptoms. When this muddiness disappeared, or abated, it was constantly a favourable sign. After a critical sweat, it often disappeared suddenly, but where there was a succession of sweats, or where no visible crisis happened, its disappearance was slow and gradual.

It was a symptom, almost in all cases, ending fatally, as well as in a large proportion of those that terminated otherwise. Children under eight years appeared to be less subject to it¹¹, and, in many cases of slight infection, in adults, the eyes retained their natural lustre.

WHITE TONGUE. The tongue very often retained its natural appearance¹², but where it changed its colour, it in general became

An ingenious physician, of very extensive practice, speaking of malignant and contagious fevers, makes a remark which I think applicable here. "When visiting a ward, containing twenty patients in fevers, at Haslar hospital, where no curtains are hung about the beds, one may at first view discover the most dangerous cases."

"There is somewhat to be observed in the eyes, and their motions, which cannot be described, and yet indicates the present condition of the patient, (if he is not at that time just roused from sleep) better, perhaps, than any one other symptom taken into consideration." Lind's Dissertation on Fevers and Infection, 2d edit. p. 193.

¹¹ Case XVI.

¹² Appendix, Case I. III.

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white and remained moist¹³. Sometimes it became parched, with a yellow streak on each side, and remained reddish in the middle; but it never was observed to form so thick a fur, or become of so dark a colour as in the advanced stages of some other fevers¹⁴. The dryness or moistness of the tongue rarely corresponded with the febrile symptoms, for the tongue was often moist where the external heat was intense, and the pulse indicated high fever, and, on the contrary, parched, where the fever in appearance was very inconsiderable.

PULSE. The general state of the pulse was low, quick, and equal¹⁵; sometimes fluttering or intermittent¹⁶. In some bad cases it remained always low, or varied little from its natural state; but it more commonly rose somewhat in the exacerbations on the two or three first days, and sometimes becoming full, open, and strong, remained so till the remission, when it returned to its former state. In the more advanced stages of the disease, the pulse, in place of rising in the exacerbations, was very apt to increase only in quickness, and became so small at the same time, as to be felt with difficulty; a circumstance which frequently led the nurses to imagine the pulse had vanished, and left them to judge of the fever from the increased heat, inquietude or thirst¹⁷.

In

¹³ Case VIII. XIII. XIV. XXVI.

¹⁴ Some remarkable observations on the appearances of the tongue, by M. Emeric, may be seen in the *Traité de la Peste*, P. 1. p. 214.

¹⁵ Case I. III. V. VII. VIII. IX. X. XVII.

¹⁶ Case XIV. XVI.

¹⁷ A circumstance remarked particularly by M. Chicoyneau, and the other French physicians, respecting the pulse, never occurred to me.

In describing the pulse of the second class, it is said, that the shivering fit was followed by a quick, open, bold pulse, which nevertheless was lost upon pressing the artery ever so little. “*Les frissons étoient suivis d’un pouls vif, ouvert, animé, qui néanmoins se perdoit pour peu qu’on pressât l’artere.*” *Traité de la Peste*,

In some cases which run out several days, and where other symptoms denoted much disorder, the pulse varied little from its natural state; but in respect to the variations of the pulse, so sudden, frequent, and seemingly so incongruous with the other symptoms, there is much remains for future observation.

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II.

It may be proper to add, that what I have said and shall say of the pulse, is to be principally understood of its state in the morning remissions, and in the exacerbations in the day-time; for I rarely saw the sick in the evening, my time of visiting being from early in the morning, till one or two afternoon; depending therefore on others for information of what passed in the evenings and nights, I seldom could expect such exact accounts of the pulse, as of other circumstances visible to the assistants.

“ p. 225, 269.—Mais ce que je vous prie Monsieur de Remarquer, c’est que quelque soit l’état de pouls & ordre des pulsations, le pouls se perd toujours quand on comprime l’artère. p. 591.” M. Verney mentions an instance to the contrary of this as singular, “ Le malade avoit alors un pouls plein, élevé, & qui résistoit au tact ce que je n’avois pas remarqué encore dans ce grand nombres des pestiferes que j’avois vus a Marseilles, p. 329.” This was at Aix, and it may be remarked, that the physicians in other towns in Provence make no mention of such a circumstance in the pulse; it is omitted also by M. Bertrand; but M. Couzier, at Alais, takes particular notice of it in his Observations, ut supra, p. 383.

If such a circumstance really existed at Aleppo, it must have escaped my notice. Where the pulse was low, small, and quick, it sometimes seemed to disappear as it were upon pressure, but not so when high and full.—The physicians employed in the Gevaudan, mention a circumstance nearer to what I have observed, “ Le pouls devient dur, profond, quelquefois si petit qu’il semble fuir dessous le doigt, p. 362.”

Goclenius, who practised in the plague in 1611, thus distinguishes the pulse: Loimograph. p. 240. “ Pulsus parvus, cum scilicet tangentibus arteria videtur, quasi tenue filum, motusque arteriæ, tres tangentis digitos non excedit: creber item et debilis, id est qui tactu evertitur; seu qui valide tactum non ferit, compressaque arteriâ cedit, cui contrarius est vehemens.”

BOOK
II.

RESPIRATION. The breathing was very seldom disordered, except in exacerbations in the advanced stage of the disease¹⁸, or on the approach of death, when, as in all distempers, it became laborious. Fetid breath, or a cough, were not observed. The sick felt no pain upon full inspiration; nor was the pain at the heart hereafter mentioned, increased by it; it is true they were often observed to sigh, as if from oppression on the lungs; but as this commonly happened where they laboured under dejection of mind or despondence, so it usually went off in the exacerbations, where sense and recollection came to be impaired.

ANXIETY. A sense of oppression about the præcordia, which the sick were at a loss to describe, was in one degree or other a constant attendant on the plague, except in very slight cases of infection; and where it came on early, or persisted in a high degree, was always a dangerous symptom. The sick showed how severely they suffered by their perpetually changing posture, in hopes of relief; but when asked where their pain lay, they either answered hastily, they could not tell, or, with a fixed, wild look, exclaimed, *kulbi! kulbi!* (my heart! my heart!). This anxiety increasing as the disease advanced, terminated at length in mortal inquietude, the patient for many hours, in the last stages, incessantly writhing his body and limbs as if in agony.

PAIN AT THE HEART¹⁹. Though this was often conjoined with the former symptom, and by the sick seemingly blended together, it appeared to be different, and to exist separately. They often exclaimed, as in the other; my heart! my heart! pointing also towards the scrobiculum cordis, but then would add, *eujani kulbi*, my heart pains me! or, *naar si kulbi*, my heart is on fire! Another mark of distinction was, that in the former

¹⁸ Case XXI.¹⁹ Case I. Appendix.

symptom the sick sometimes spontaneously pressed their own, or the hand of another to the breast, whereas in this they could hardly bear the part to be touched.

CHAP.
II.

This burning pain seemed to me to be seated about the orifice of the stomach, and I was once inclined to think it might be owing to bile or other acrid colluvies; but upon observing that very often, instead of being relieved, it was rather increased by vomiting, which had procured free discharges, I suspected its continuance was to be imputed to a more fixed cause than matter contained in the cavity of the stomach. Whether the mortal inquietudes, mentioned above, were produced by the increase of this or the former symptom, or by the concurrence of both, could not be determined; the patient being for the most part in that stage, bereft of his intellects.

DEBILITY. The sudden loss of strength and disturbance of the functions attributed to the brain and the heart, are reckoned, in a particular manner, symptoms belonging to the plague. In their highest degree they distinguish the most fatal forms of the disease; and under different modifications adhere to all its varieties.

In the most destructive forms of the plague, the vital principle seems to be suddenly, as it were, extinguished, or else enfeebled to a degree capable only for a short while to resist the violence of the disease; in the subordinate forms, the vital and animal functions, variously affected, are carried on in a defective, disorderly manner, and denote, more or less, danger accordingly.

FAINTING. Faintness, in different degrees, was a very common concomitant, and sometimes, though seldom, terminated in syncope. The early appearance of this symptom was remarkable in the plague; for in the advanced stages of other fevers, it is very common, especially upon sitting up; but here the erect posture

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seemed

BOOK
II.

seemed to have less affect, nor was the faintness so soon relieved by lying horizontally, as in ordinary fevers; at least it appeared so to me in several instances.

CONVULSION. The access of the fever was sometimes, but very rarely, attended with convulsions²⁰. Convulsive motions in the limbs were frequently observed in the course of the disease, especially where there happened to be a numerous eruption of carbuncles²¹, as also towards the end of the disease²². The *subfultus tendinum* appeared to me to be less frequent than in ordinary malignant fevers; but a continual trembling of the hands, without startings, was very common. The hiccough was seldom observed, and sneezing not once met with.

URINE. The urine, in many cases, differed in no circumstance from that of a person in health. It sometimes was of a paler yellow, at other times high-coloured, but very often did not correspond with the state of the febrile symptoms. I never observed it so pale as it sometimes is found in the cold stage of other fevers, and never found it tinged with blood. I could observe no regular deposition of sediment.

It ought however to be remarked, that what has been said is not the result of wide observation; the examination of the urine having been too little attended to, partly through my own neglect, partly through that of the nurses: indeed, it often became impossible, the sick rendering it insensibly in bed.

PERSPIRATION. Of all the excretions *that* by the skin would seem to be the most materially important in the plague. Where the skin remains perpetually dry, or where short and precipitate

²⁰ Case XCII. CXIV.

Appendix, ²¹ Case XV.

²² Case XCVIII.

sweats are attended with no favourable alteration of symptoms, danger is always to be apprehended²³. On the other hand, sweats at certain periods of the disease appeared clearly critical, in a greater or less degree. They were followed by a manifest alteration for the better, and, by their repetition, the fever was carried entirely off, or reduced to symptomatic exacerbations seemingly dependent on the eruptions.

CHAP.
II.

That the sweats here alluded to were in the natural course of the disease, or produced by the *vis medicatrix naturæ*, is sufficiently evinced by many instances in the subjoined century of pestilential histories; and had I been able, as it was my wish, to have marked with more precision the succession of symptoms, and other circumstances in such cases, the histories, which I am sensible are often defective, would have been of more service in establishing a less uncertain prognostic, as well as in leading to the discovery of what impedes or assists the salutary efforts of nature resisting the disease.

When it is considered that a natural tendency to sweat is observed in a very large proportion of the infected, and perhaps of those cases wherein medicine appears hitherto to have been exercised, if not only, most visibly with success; the importance will be obvious of bestowing peculiar attention on these forms of the disease in their natural course. It is that alone which must finally determine the expedience of forcing sweats by more powerful sudorifics, where the natural tendency is absent; or of substituting more effectual means of relieving the sick. In respect also to the other classes, which have generally been treated without success, till such time as the natural course of the varieties be ascertained, there will always be a risk of ascribing to the remedies administered, consequences good or bad which essentially belong to the disease itself.

²³ Case LV.

BOOK
II.

The periods and other accidents, relative to sweat, will be more fully explained under the respective classes. I shall only remark further at this place, that I never observed blood exude through the pores; neither was the smell of the sweat particularly offensive, or in any degree so remarkable as that of some eruptive fevers, particularly the small-pox before eruption.

VOMITING. It was observed on another occasion, that this symptom was absent in a large proportion of the sick. Where it appeared at the beginning, and continued with short intervals, it generally denoted a fatal termination²⁴, and when it came on later in the disease, except in a slight degree, or was produced by extraneous causes, it was commonly in association with other dangerous symptoms²⁵.

The matter ejected from the stomach was various. Where the reachings were strong and frequently repeated, bile was sooner or later thrown up, but seemed to be emulged from the biliary ducts by the violence of the reaching; for at the beginning no bile was found in the basin, and draughts of warm water were returned untinged, or mixed only with the ordinary contents of the stomach.

Sometimes indeed bile was thrown up at first, and must have been lodged in the stomach previously to the reaching²⁶; some cases were attended with this discharge, accompanied with a bitter taste in the mouth, a yellowness in the eyes, and other bilious symptoms; but, in general, bilious vomitings were not nearly so frequent as in the autumnal fevers. I do not recollect the having observed fetid discharges from the stomach; which probably was owing rather to accident, or to my inattention, than to such never happening; neither did I observe vomiting of

²⁴ Case XXVI. XLVIII. XCVIII.

²⁵ Case XLIII.

²⁶ Case III. XXX.

blood; but a blackish liquor sometimes came off the stomach in the last stage of the disease, in the production of which, blood may, perhaps, have had some share.

CHAP.
II.

A nausea was rather more common than vomiting, but unless where the tongue or other symptoms indicated bile or other colluvies in the stomach, repeated reaching, provoked by warm water, had little effect in removing it, further than they effected the skin. Where a gentle sweat succeeded to these forced reachings, the nausea was lessened, and even spontaneous vomiting was often checked by a sweat; but a loathing, or aversion, from food of all kind, seldom left the patient till after some critical change had taken place.

LOOSENESS. A looseness came on sometimes the first day²⁷, but more commonly supervened in the advance of the disease²⁸, and in either case, except where all other circumstances were favourable, was considered as a dangerous symptom²⁹. The stools, for the most part, were less fetid and offensive than those in tertian fevers; particular cases excepted, where bilious symptoms happened to predominate. A mistake, however, in this point may easily be made, if the stools be not examined till sometime after they have been rendered, for in the hot climate they grow highly offensive in a short while.

I have sometimes seen dark-coloured blood discharged by stool, unmixed with feces, and without griping pains³⁰; indeed; pains in the bowels more rarely attended than in the common bilious diarrhœa. It was, perhaps, owing to this last circumstance, that looseness in the plague so often admitted of being

²⁷ Appendix, Case II. XCII.

²⁸ Case I.

²⁹ Case XIX. XXX. LXX.

³⁰ Case XII.

BOOK checked by astringents or opiates, without previous purgation,
 II. and with visible advantage to the sick.

As looseness was in general detrimental, so on the other hand costiveness was attended with no harm, and often with little inconvenience. A number of the sick were disposed to be costive throughout the disease³¹; and some had no stool for seven or eight days³²; the popular dread of provoking a diarrhoea proving a bar to laxatives, and even to simple glysters, which are readily admitted at other times.

The consequences of this sluggishness of the bowels were by no means what might have been expected; for on comparing a number of cases wherein the body had been all along regular, they did not appear to have been particularly exempt from those symptoms which might plausibly have been imputed to costiveness in the others.

The general neglect of purging in the decline of the disease will be mentioned hereafter, in treating of the method of cure.

HEMORRHAGE. Hemorrhages, if not very slight, were in general reputed dangerous in whatever stage of the disease, and most of the cases wherein they occurred, especially if late, terminated fatally³³. The journals, however, afford exceptions to this remark, and some instances are produced where the sick, who had hemorrhages escaped, contrary to expectation³⁴.

I had occasion to see hemorrhages from the nose and the uterus only; for a few instances met with of blood from the

³¹ Appendix, Case IV. LXXXI. LXXXVIII.

³² Case XCI. See *Traité de la Peste*, p. 43.

Appendix, ³³ Case LV LXXXIII. XCIII.

³⁴ Case LXV. LXVII. LXXXVI. XCI. XCVI. CVIII.

lungs, the patients having before been subject to hæmoptoe, I CHAP.
reckoned not so much pestilential symptoms as the return of an II.
old disorder ³⁵.

A bleeding at the nose early in the disease gave little alarm in young plethoric subjects, unless where profuse, or returning at short intervals. In the advanced stages it seldom was profuse, but the blood was of a paler colour, and in consistence thinner; and to the hemorrhage were often joined petechiæ, vibices, or other symptoms of approaching death ³⁶.

An irregular eruption of the menses, as likewise an immoderate flux of them, were generally attended with danger, but I had not sufficient experience to pronounce any thing on their natural return at their proper period ³⁷.

EFFECTS OF PREGNANCY. Women in whatsoever stage of pregnancy, when infected with the plague, seldom escaped abortion, and many of them perished, even where the loss of blood had not been considerable. Women near their time perished, almost, without exception, surviving delivery only a few hours. Some were delivered in the agonies of death ³⁸.

The infant sometimes bore evident marks of infection, at other times no marks whatever could be discerned ³⁹; but my experience here did not exceed a dozen of cases. I knew no instance of a child's living, who had been brought into the world in the mother's last moments; nor of any of the others surviving their birth more than a few hours.

³⁵ Case LXXXI.

³⁶ Case LV.

³⁷ Case XXVII. LVI. LXXXVIII. See *Traité de la Peste*, p. 393.

Appendix, ³⁸ Case XIV. XVIII. XL. LXI. LXII.

³⁹ Case XL. LXI. LXII.

C H A P. III.

Description of the Plague, arranged under Six Classes.

THE pestilential cases which fell under my observation at Aleppo, may be arranged under six classes. Of these the first four comprehend those varieties of the disease, which, though they sometimes in appearance nearly approach each other, are distinguished pretty constantly by certain differences, either in the symptoms themselves or in their succession. The sixth class, under the title of Anomalous, is allotted to complicate cases, wherein the characters of more than one class seem to be blended; as also to such where the concurrence or series of symptoms was discordant, various, and in every sense irregular.

C L A S S F I R S T.

The sick in this class were sometimes attacked suddenly with a loss of strength, a confusion or weight in the head, a giddiness that came and went, an oppression about the præcordia, and dejection of spirits. They were inclined to be silent, showed anxiety in their aspect, but made few or no complaints; and either having no febrile symptoms, or such as were very obscure, were frequently considered by the persons about them as indisposed in a slight degree. These perished sometimes within the twenty-four hours, sometimes the second or third day. They had neither buboes nor carbuncles, and it was very rare to find suspicious marks of infection on the dead bodies.

Others, who at first were attacked in the same manner, became in a few hours more manifestly disordered. Their eyes became muddy, the surface of the body cold, they grew drowsy and lethargic, and complained of pain at the heart. As the distemper advanced, they often lost the power of speech; the
skin

skin seldom recovered heat, or if it did, it was in irregular flushings of short continuance, which soon gave way to cold clammy sweats. The pulse sometimes remained nearly in its natural state, but for the most part was low and quick. They were by turns delirious, confused, and sensible; but the comatous disposition was the most prevalent. Towards the end they suffered incessant inquietude.

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III.

Some had a vomiting the first night, in others a diarrhoea supervened the next day, both or either, accelerating the fatal period; but these symptoms were less frequent than in some of the other classes.

Buboes appeared in none, except in a very few, who survived the third day. Carbuncles were rarely met with sooner than the month of May, which was later than the period when this form was predominant. Petechiæ, vibices, or broad livid roundish spots, occurred sometimes, but were not common, and the two latter were seldom visible till after death.

None of the sick recovered, and most of them died the second or third day; a very few lived to the fifth.

These destructive forms of the disease prevailed most at the rise of the plague in 1760, and its resuscitation in the spring of the two subsequent years, decreasing always as the distemper spread: and though they were found dispersedly in every stage of the pestilential season, yet the number of subjects of this class was proportionally very small, compared with that of others.

Of the sick who perished within the twenty-four hours, I saw none myself, and for that reason have said nothing of the pulse; the other circumstances were collected from persons of the family. Some were said to have died within a few hours; but I am disposed to doubt this fact, having in several instances, where I had

BOOK II. an opportunity of making enquiry, found that matters had been inaccurately stated. The lower ranks of people pay little regard to flight disorder, and seldom begin to reckon till the distemper has made some advance; hence the difficulty of determining the beginning of the malady, where it had not been marked by some striking alteration: thus it appeared that persons said to have expired suddenly, though they had been ill only a few hours, had in reality been indisposed one or two days. From a like inaccuracy has arisen much of the difference and contradiction on the subject of critical days in the plague, and which must constantly happen where the reckoning commences at different periods.

Of such as survived only the first thirty hours, I had not an opportunity of seeing many instances; a physician in that country being seldom called in so early: besides which, the period when that form was most prevalent was early in the season, before the populace had taken alarm, and when all means were employed to conceal the distemper from the Europeans.

The total absence of buboes in such patients as perished suddenly, I have no doubt of, nor of their being, in general, very rare in others of this class: though I suspect the buboes might sometimes have been concealed, where the disease run out to the fourth or fifth day, and, for the same reason, that the reports of the state of the corpse were sometimes not true.

That the plague, however, under a form of all others the most destructive, exists without its characteristic eruptions, or other external marks reckoned pestilential, can admit of no doubt, and it is to be regretted that mankind have so often, from the absence of these, been betrayed into errors of fatal consequence on its first invasion; at which early period human prudence can only be exerted, in the way of public defence, with any probability of success.

CLASS SECOND¹.CHAP
III.

The disease begun generally with a slight shivering or sense of cold, which was soon succeeded by fever accompanied with giddiness, head-ach, vomiting, and sometimes looseness². The fever increasing in the night the face flushed, the eyes glistened, and the patient either grew delirious, or became drowsy and comatous. The pulse in this stage, usually continued full and strong; the thirst was excessive, though the tongue was not parched, but the stomach retained little of what was drank, and the patient, harassed by the vomiting and other symptoms, passed a very unquiet night.

Towards day break, the fever abating, the sick grew more composed. Where they had been delirious in the night, they usually recovered their senses in the morning, and did not lose them again in the subsequent exacerbations through the day; though sometimes disposed to ramble a little or to talk incoherently. Where they had been comatous in the night, the morning remission was less distinct, the lethargic disposition remained, and either increased in the exacerbations or alternated with delirium, so that they continued drowsy or rambling all day.

The pulse in the morning, still kept up, more or less full³, and the external heat was moderately feverish, but the skin for the most part was dry. The patient, though less unquiet, was more dejected. As the day advanced the pulse began to alter, and other symptoms characteristic of infection succeeded, though not in a regular series, or in all with equal rapidity; their accession seemed to be hastened by the vomiting; as also by the diarrhoea, which frequently supervened at this time.

¹ Appendix, Case I. II. III. VIII. IX. XIII. XIV. XVII. XX. XXVI. XLVII. XLIII. LXI. LXVIII. XCII. XCIV. XCVIII.

² Case II. XLIII. XX. XCII.

³ Case XCVIII.

BOOK II. The principal symptoms here alluded to were the muddy eyes and peculiar confusion of countenance; a low quick equal pulse; sometimes low and fluttering⁴, rarely intermittent. The tongue whitish, often unaltered, and rarely parched; the external heat moderately feverish, at other times intense, in irregular flushings; pain at the heart, or oppression about the præcordia; burning pain at the pit of the stomach; and incessant inquietude⁵.

The oppression at the præcordia, and burning pain at the pit of the stomach, were sometimes complaints from the first night, but are joined with the other symptoms referred to the second day, as being more generally the time of their appearance.

The progress, more or less rapid, of the symptoms above recited, denoted more or less danger; but when to these were joined a faltering in the tongue, or loss of speech, while the surface of the body, losing its natural or feverish heat, became cold and damp, with clammy sweat, death was then impending and inevitable, though perhaps the fatal moment was still at some distance⁶.

In the evening of the second day, the syndrome of symptoms became more and more alarming. As the night advanced all grew worse, and if towards morning the patient appeared to lye more quiet, it seemed owing less to a change to the better, than to his strength being exhausted by the dreadful inquietude of the preceding eight hours.

It sometimes happened, where the vomiting had ceased or abated early, that there was a tolerable remission, on the morning of the third day, which revived the expiring hopes of the

⁴ Case III.

⁵ Case XIV.

⁶ Case I. II. XLVI.

assistants: but the calm was always fallacious, and of short duration; the exacerbations returning with equal or increased vigor, while the enfeebled powers of nature became less and less able to resist.

CHAP.
III.

In some, especially where the debility had been hastened by vomiting, looseness, or hemorrhage, the third day proved fatal⁷; but the disease more commonly was protracted two or three days longer⁸: advancing so far regularly to its termination, that each night afterwards proved worse than the precedent, and in the day, the intervening calms or remissions were so transient and obscure, as to leave no room for hope. None of the sick in this class recovered, whether the disease was left to itself or treated methodically.

The course of the buboes was of no material consequence. They made their appearance commonly the second day, oftner the third, and sometimes later; a very small proportion were without eruptions. But the buboes never approached to maturation here, and their advancing or not, were circumstances which had no visible effect in hastening or retarding the termination of the disease.

Carbuncles, though more frequently met with than in the former class, were not common; and where they occurred, the suppuration sometimes begun round the edges of the black crust, which rarely had time to cast off: but they very often continued to spread, or, where the gangrene stopped, remained dry and shrivelled.

Petechiæ and vibices were sometimes met with. Livid marks on the corpse were more frequently observed than in the first class.

⁷ Case III. VIII. LXII. XCII.

⁸ Case IX.

⁹ Case XVII. XX.

The access of the disease in this class, was only distinguished from the former by the absence of vomiting and looseness, which, though they sometimes supervened at a stage somewhat more advanced¹¹, never attended from the beginning. The other phenomena, with very little variation in their series, were exactly the same. The fever, in general, did not rise so high the first night, nor was it accompanied with delirium, though always with much inquietude. The comatous disposition seldom came on before the second or third night¹².

The morning remission, on the second day, was more distinct than in the former class, and the succeeding exacerbations through the day were less formidable; the accession of the pestilential symptoms enumerated in the second class¹³, being here several hours later, and their progress, for the most part, less rapid. The second night, however, was always a bad one, the patient being either delirious or lethargic.

A gentle sweat early in the morning of the third day, sometimes produced a change in appearance so favourable as to give some dawn of hope, but the quick recurrence of exacerbations more severe than ever, gave a surer prelude of what was to be dreaded¹⁴.

This calm on the third was frequently precluded by the intervention of vomiting or looseness, which seldom failed to hasten

¹⁰ Appendix, Case VII. XIX. XXII. XXIV. XXVIII. XXX. XXXIII. XXXIV. XXXVI. XL. XLIV. XLV. XLVI. XLVIII. LIII. LIV. LV. LXI. LXVI. LXIX. LXX. LXXII. XCV. C. CII. CIV.

¹¹ Case XXXIII. XXXV. XLIV. XLVI. C.

¹² Case XXXIII. C.

¹³ See page 165.

¹⁴ Case XLVIII.

the catastrophe¹⁵; but, otherwise, few died sooner than the fifth day. In such as died on the fourth, the comatous disposition had come on early, and been joined with other bad symptoms, as faltering of the tongue, loss of speech, and sometimes petechiæ¹⁶. The day most commonly fatal was the fifth, but a few lived to the seventh, and even to the eighth.

CHAP.
III.

The calm on the third day was followed by alarming exacerbations, in which the pulse was usually low and quick, or rose by starts, being much more variable than in the first two days. Sometimes a disposition to sweat was observed towards the end of these exacerbations, especially in the mornings; but, in general, the skin remained dry, or where a sweat broke out, it proved short and ineffectual.

The course of the disease on the fourth and fifth days, was nearly the same as on the third, allowing for the progressive aggravation of symptoms, which in all cases denote impending danger. The nights continued to be restless, and the remissions became gradually more obscure. In those who survived the fifth day, the febrile symptoms continued high, the pulse also kept up, and there was often a tendency to sweat, inasmuch that appearances were sometimes so favourable as to render the death of the patient on the seventh unexpected¹⁸. But, in general, the issue of the disease might be guessed from the fourth day.

Buboes, for the most part, made their appearance earlier than in the former class, though sometimes they retarded to the third, but the cases were very rare where they did not appear at all¹⁹.

¹⁵ Case XXX. XIX. LIII.

¹⁶ Case XXX. XXXIV. C. CIV.

¹⁷ Case LIV. LXX. XXXVI.

¹⁸ Case LIV.

¹⁹ Case XXIV.

BOOK
II.

In regard to carbuncles, vibices, petechiæ, and livid spots, after death, nothing need be added to what has been remarked in the second class: with which also the present agrees in its mortality, for none of the sick, so far as I saw, recovered.

The difference between the third and second class, consists in the absence of vomiting at the beginning; the later accession of coma and other bad symptoms; and a slight tendency to perspiration, which very rarely occurred in the second. These shades of distinction may not, perhaps, be strictly sufficient to constitute a variety; but as vomiting was absent, at the beginning, in a great number of cases, in which the progress of symptoms agreed, in general, with the description now given, I judged it better to allot a distinct class than to blend both in one: without, however, in a matter merely arbitrary, contending for the necessity of the separation. It is certain that from the second or third night the course of symptoms, in both classes, varied very little, and the termination of the disease was in both the same; it may be added, that they reigned together through all the periods of the pestilential season, but were most prevalent in its augment; for at its height, and in its decline, they gave place to varieties of the disease less destructive.

CLASS FOURTH.

The fourth class was the most numerous of all: comprehending those forms of the disease which, from the various and sudden changes in their course, so often, though not constantly, met with, cannot easily be represented in a concise and connected description. I therefore enter on the attempt with diffidence; and, as a supplement for defects, must refer to the cases themselves noted below ²⁰.

²⁰ Appendix, Case V. VI. X. XI. XV. XVIII. XXVII. XXXII. XXXVII. XXXVIII. XXXIX. XLI. XLVII. L. LVIII. LIX. LX. LXIV. LXXVI. LXXAI. LXXXIII. LXXXV. LXXXVII. LXXXVIII. XC. XCVI. XCVII. XCIX. CI. CIII. CV.

The

The distinctive marks of this class are, the continuance of the inflammatory or febrile symptoms with less interruption than in the former; a pulse more constantly sustained, or soon recovering itself, when sunk and hurried in the exacerbations; the length and rigour of the exacerbations decreasing in the advance of the disease; and, above all, the prevalent tendency to a favourable discharge by the skin, with the critical sweats on the 3d, 5th, or subsequent days.

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III.

These, in general, were the distinctive marks, but the concurrence of all is not to be expected in each case; and though, in general, the absence of a tendency to sweat was an unfavourable sign in the prognostic, yet the Journals furnish instances of recovery without any sensible discharge whatever by the skin. It will also readily be understood, that what was remarked above of exacerbations in the advance of the disease, refers to cases terminating happily: in others the exacerbations were, aggravated by the adjunction of mortal symptoms.

The phenomena attending the access of the disease, varying in degree, were nearly the same as described in the two former classes; vomiting was a concomitant in about one-fourth part of the sick.²¹ The fever, for the most part, was very moderate the first night, very rarely accompanied with delirium, and almost never with the comatous disposition.

From the vigour or sluggishness of the access, no certain judgment could be formed of the event;²² those often escaping favourably

²¹ Case X. XI. XVIII. L. LIX. XCVII.

²² M. Bertrand, whose description of the disease I esteem a good one, seems to be of a different opinion. “ La violence du mal répond toujours à celle des symptômes qui l’annoncent, en fort que si le froid est long, le mal de tête & le vomissement violens, on doit s’attendre à une grande maladie. Quelque fois ce mal a commencé sans aucuns symptôme par une petite fièvre qui véritablement augmentoit bientôt; &

BOOK
II.

ably in whom the febrile symptoms rose highest the first night²³, whilst others, where the attack seemed slight, suffered a tedious illness, or perished. But this is to be understood of febrile symptoms; for the more formidable pestilential symptoms seldom or never, in this class, came on till a more advanced stage.

The buboes and carbuncles commonly made their appearance the first day; but it was not unusual to see a successive eruption of these tumours in the course of the disease,²⁴ as will be explained more fully hereafter.

The remission on the morning of the 2d day, was generally less obscure than in the other classes, even, although no diaphoresis had preceded. The pulse was lower but not small; the external heat temperate. The sick complained of head-ach, of pain from the tumours, and some were harassed by the vomiting; but for the most part the vomiting, where it accompanied the access, ceased the first night.

As the day advanced, the sick became more uneasy, changing variously at short intervals. Sometimes in the forenoon, a more regular exacerbation came on, without any preceding sense of cold. The pulse rose; the head grew more confused, and some showed a slight tendency to coma. The external heat was temperate, the tongue moist, and yet they complained of thirst: at other times, sensation in all other respects unimpaired, they had no desire to

ces heureux commencemens étoient presque toujours d'un bon augure pour le malade." *Traité de la Peste*, p. 371.

With regard to the length of the cold fit, it appeared to me of less consequence than the vomiting, &c. But his remark on symptoms indicating the approach of a dangerous disease, held true only, at Aleppo, in the 2d and 3d classes, where the beginning of the disorder was accompanied with alarming symptoms; but not so in the 1st and 4th classes, where the mild appearances at first, proved very often deceitful.

²³ Case CI.

²⁴ Case XV.

drink, though the pulse, the dry tongue, and heat of the skin denoted a higher degree of fever.

CHAP.
III.

This exacerbation usually declined with a partial sweat, but notwithstanding the mitigation of the fever, the patient, in appearance, was more disordered; he complained of oppression at the heart, and illness which he could not describe. As night approached he grew gradually worse. The feverish heat was more intense; the pulse less full, but very quick; the inquietude increased, the eyes became muddy, and he was much disposed to talk incoherently, or to slumber. A sweat breaking out early in the morning, brought on a mitigation of all these symptoms, in proportion as it happened to be more or less profuse; and even without a sweat, some degree of mitigation usually was observed.

The morning sweat on the third day, in some cases proved completely critical; but more commonly produced only a remission so favourable as to encourage the expectation of a more perfect crisis on the fifth; but where the patient neither sweated on the third, nor a sensible remission took place on that day, danger, in some degree, was always to be apprehended.

It should be remarked, that in the remissions here alluded to, the pulse not only became slower, but softer and fuller, especially after the sweat; and, though the eyes still remained muddy, the anxiety and inquietude had abated, the intellectual faculties were clearer, and the patient found himself every way better.

The exacerbations in the course of the third day, though not protracted, were pretty severe; and the third night was again disturbed by the recurrence of the same symptoms. But the pulse, though variable, remained in general more full and stronger than during the exacerbations of the second and third class, at the same period; where the pulse, when it once sunk, however

BOOK II. it might vary in quickness, seldom or never rose to the same standard as before.

The remission on the morning of the fourth day, was sometimes preceded by a sweat, on which the length or shortness of its duration seemed to depend: but the sweat was never so profuse as that of the third or the fifth. The exacerbations which followed were nearly the same as the day before; but the nocturnal exacerbation was commonly more severe, and continued till such time as a profuse sweat broke out, which was of various duration, and left the patient extremely faint and languid, but in every other respect manifestly relieved²⁵.

After the sweat on the fifth, the subsequent exacerbations became lighter and lighter, and the buboes for the most part advancing favourably, little or no fever was left remaining after the beginning of the second week: except perhaps symptomatic heats occasioned by the eruptions. But where the sweat on the fifth proved imperfectly critical, milder exacerbations, which usually declined in gentle sweats, continued to recur till the seventh day, when a second profuse sweat placed the patient beyond all danger²⁶.

The syndrome of symptoms described as acceding the second day, sometimes kept back to the third or fourth; in which case a critical sweat was not to be expected sooner than the fifth, or rather the seventh. The accession of these symptoms, sometimes retarded even later than the fourth, but then the future course of the disease became more irregularly various²⁷. The exacerbations declined sometimes with, sometimes without sweats, and the patient passed slowly through the fever, without any sensible cri-

²⁵ Case XXXVII. XXXVIII. CI.

²⁶ Case LXXV. LXXXIII. XC. XCVI.

²⁷ Case LXXI.

tical evacuation whatever²⁸. It may be remarked, however, that the buboes, for the most part in this class, came to maturation; but generally the fever had disappeared long before; and in cases where these tumors had dispersed, there was very little difference observed in the course of the fever, if the patient had sweated, or in the quickness of recovery²⁹: but where no critical sweat happened, recovery was slower³⁰. As to any particular tendency to relapse, where the buboes had dispersed³¹, I met with no instances in favour of such an opinion.

CHAP.
III.

From the tardy accession of formidable symptoms, it sometimes happened that those who for some days seemed to be slightly infected or going on prosperously, came to suffer a tedious illness³², or died, contrary to expectation³³; while more alarming attacks terminated happily³⁴. In the latter case, the event remained doubtful to the fifth day; in the former, till the end of the week. At those periods a conjecture might be ventured with tolerable success; though cases also occurred wherein matters remained in suspense several days longer.

Hemorrhage³⁵, looseness³⁶, petechiæ³⁷, loss of speech³⁸, &c. and pregnancy³⁹, were circumstances, as in the former classes, that enhanced the danger; but in this class exceptions were met with to the general rule⁴⁰.

²⁸ Case XCVII.

²⁹ Case XC. XCI. CI.

³⁰ Case XI. XXXVII. XLI.

³¹ Relat. Historique, p. 450, and *Traité de la Peste*, p. 519, 528.

³² Case XI. XXXVII. XLI.

³³ Case VI. XXVII.

³⁴ Case CI.

³⁵ Case LXXXIII.

³⁶ Case XXXIX CV.

³⁷ Case LXXII.

³⁸ Case

³⁹ Case XVIII. LXIV.

⁴⁰ Case LIX. LX. LXXXVI. LXXXVII. XCIX. CIII.

There

BOOK
II.

There is an instance of a pregnant woman dying the third⁴¹; but, in general, the seventh was the fatal day; some, very rarely, struggled to the eleventh⁴².

The disease, under the forms arranged under the fourth class, begun to be prevalent before the plague had reached its height, and continued through its decline till its final cessation. It appeared to me, that more than one half of the infected of this class recovered.

CLASS FIFTH.

To this class are referred cases of slight infection, wherein the more formidable pestilential symptoms never concurred, and all the infected recovered⁴³.

The access here was often attended with so little apparent disorder, that the eruptions gave the first alarm⁴⁴; and the fever, which came on afterwards, was frequently so slight as not to confine the sick to the house: others found themselves indisposed for two or three days, but were not sensible of any febrile heat whatever.

But in this class the disease did not always invade thus insensibly⁴⁵. The febrile symptoms, especially the first three days, sometimes run pretty high; and the fever afterward, in nocturnal exacerbations particularly, run out to the end of the week, or longer: but as there was no concurrence of alarming symptoms,

⁴¹ Case XVIII. LXIV.

⁴² Case XXXII.

⁴³ Appendix, Case XXIX. XXXI. XLIX. LII LVII. LXIII. LXXIII. LXXV a. LXXV b. LXXVIII. LXXIX. LXXXII. LXXXIV. LXXXVI.

⁴⁴ Case LXXIII. LXXVIII. LXXXIV.

⁴⁵ Case XXIX. XXXI. LII. LXIII. LXXIII.

and the exacerbations, terminating for the most part in sweats, gradually diminished in force after the third or fourth night, it was not difficult in the worst cases to foretell the event at that period, nor necessary in others to defer a decision so long.

CHAP.
III.

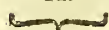
All the infected had buboes or carbuncles, and very often both eruptions concurred in the same subject. Persons not confined by indisposition, were often by the inguinal buboes prevented from walking abroad. The carbuncles constantly formed the black crust, and then suppurated; the buboes in one-third of the sick dispersed. The dispersion of the buboes was never observed to be attended with bad consequences, notwithstanding the general neglect of purging in the decline of the disease: indeed, very few of the infected had recourse to remedies, topical applications excepted, unless perhaps a bleeding at the beginning, where the febrile symptoms run high.

This class was nearly as numerous as the fourth; but began to be predominant rather later, and reigned most of all in the decline of the plague in 1762.

C L A S S S I X T H.

This class being reserved for such cases as were dubious, anomalous, or extraordinary, varying more or less in some material circumstances from any of the foregoing classes, admits of course of no general description. The particular cases, to which have sometimes been subjoined occasional remarks, may be consulted, agreeably to the references made below to the journals⁴⁶.

⁴⁶ Case IV. XII. XVI. XXI. XXIII. XLII. LI. LXV. LXVII. LXXI. LXXVII. LXXIX. LXXX. LXXXIX. XCI. XCIII. CVI. CVII. CVIII. CIX.



C H A P. IV.

Of the Pestilential Eruptions.

I PURPOSE in this chapter to give an account not only of the buboes and carbuncles, but likewise of the other *exanthemata*, and changes in the colour of the skin, observed at Aleppo in the course of the disease.

The two first are equally diagnostics of the true plague; their presence, separately or in conjunction, leaves the nature of the distemper unequivocal: but fatal has been the error of rashly, from their absence, pronouncing a distemper not to be the plague,¹ which in the sequel has depopulated regions, and which early precaution might probably have prevented from spreading.

The infected of the first class seldom or never had buboes or carbuncles; and in a few of the second, where the disease proved quickly fatal, these eruptions were likewise absent: but allowance made for those exceptions, which were proportionally rare, the buboes may be considered as constantly concomitant in the plague. It is not the same in respect to the carbuncles, which were remarked in about one-third of the infected only; and, for the most part were conjoined with the buboes, the instances being rare of their existing alone. They very seldom, at Aleppo, were observed earlier than the month of May, that is, till after the distemper had spread and raised alarm; they of course were not to be expected in the first pestilential accidents: and as the forms of the disease

¹ Thomas Phayer, supposed to have practised in the reign of Henry VIII, makes a very proper remark on this subject. After mentioning the buboes and carbuncles as infallible signs of the plague, he adds, "Notwithstanding every man infected with that pestilence hath not such ulcers, blotches or sores, wherefore yee must take heed of the other signs hereafter that ye bee not deceived for lack of the said apocryphes." *Treatise on the Plague* by T. P. republished by a physician, Lond. 1722, p. 30.

at its rise, or its resuscitation early in the spring, were chiefly of the first and second classes, wherein buboes likewise were often absent, the difficulty of detecting an incipient plague, was consequently increased.

CHAP.
IV.

The inguinal, axillary, parotid, maxillary, and cervical glands, were the seat of buboes, taken in an extensive sense. But the first were the most commonly affected; the latter two were seldom observed to swell without either the parotid swelling at the same time, or soon after, or a carbuncle protruding near them: they never were the sole pestilential eruptions, and I recollect few instances of their coming to maturation.

The inguinal pestilential bubo sometimes appeared in the same place as the ordinary venereal tumor, but for the most part was situated lower in the thigh, near the crural vessels:² a circumstance which often misled those not accustomed to search, who expected to find it higher in the groin. A burning shooting pain was often felt in the part, before any swelling could be perceived by the finger;³ but the tumor, when once distinguishable, always gave pain upon pressure, though the sick sometimes, in hopes of concealing their disorder, asserted the contrary, and pretended the swelling had been of long standing.

In the incipient state of the bubo, a small, hard, round tumor, was perceived by the finger, more or less deeply seated,

² See on this subject Bindius Loimograph. lib. ii. p. 84.

The site of the inguinal bubo has also been well observed by the French physicians: "Les bubons étoient ordinairement situés aux aînes & souvent au dessous faisant sur-tout gonfler les glandes lymphatiques qui sont placées à l'endroit de la gaine des vaisseaux cruraux." *Traité de la Peste*, p. i. p. 236.—In another place, the situation of the bubo is thus described, "Les deux bubons étoient situés au dessous des aînes à la partie supérieure de la cuisse, où se réunissent les vaisseaux lymphatiques qui rapportent la lymphe des extrémités inférieures." p. 288 — M. Bertrand describes the situation of the buboes thus, "Ils sortoient aux aînes & souvent au dessous & à ces glands qui occupent la partie supérieure de la cuisse." *Traité*, I. 374.

³ Case LXXIX, LXXXVII.

BOOK II. but for the most part moveable under the skin, which was yet soft, of its natural colour, and not protuberant. As the tumified gland increased in size, it commonly took an oblong form, became less moveable, and the teguments thickening were protruded into a visible circumscribed tumor, without outward inflammation: it did not externally assume the oblong shape till it had advanced further.

In some the tumor was exquisitely painful, in others obtusely so, according to the constitutional or morbid state of sensibility, but was never indolent. Its progress to maturity was more or less rapid not influenced, in all appearance, by strength of constitution or the concurrence of alarming symptoms: whence in the prognostic, little reliance was had on the course of the bubo in the first week: for though it was always a desirable circumstance the tumor should come forward, yet it often happened that the cases wherein appearances in that respect had been most flattering, terminated fatally, whilst, in more fortunate cases, the issue often remained long dubious, and at length the tumor dispersed, contrary to expectation.

The tumor, when once visibly formed, either remained a short while in the same state, or, what was more usual, advanced; it very rarely in the first week was observed to recede. Its progress indeed afterwards was more various, alternately showing signs of ripening and dispersing. But these variations chiefly respected the teguments, for the gland itself, when carefully explored, was seldom found to alter, and where the tumor actually dispersed, it was not suddenly, but by slow degrees. Thus from the alteration in the teguments alone, the whole tumor, on a superficial view, seemed to lessen or increase, though the gland remained the same; and I am inclined to think this deception was often the cause of the buboes being said to fluctuate, or to vanish in appearance entirely, and again return; at the same time I am far from thinking that this fluctuation was never real⁴.

⁴ See Hodges and Russell.

The skin seldom became inflamed in any degree, in the first week, though tense and very painful; hence in the fatal classes it generally retained the natural colour. A few extraordinary cases were met with, in which the bubo itself, or the skin near it, assumed a pale blueish hue⁵.

CHAP.
IV.
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Where the tumor advanced rapidly, and was uncommonly painful, I sometimes apprehended an approaching mortification, but I never saw such an event take place externally, and had no opportunity by dissection of ascertaining the state of the gland⁶. I was informed that in some cases the skin of the bubo, which before had not been inflamed, became livid after death.

The bubo seldom began to inflame externally, or to show unequivocal signs of coming to maturation, till the fever had abated and was manifestly on the decline. This happened at various periods, but rarely sooner than the eighth or ninth day. The external inflammation then advancing, the tumor by degrees softened, and opened of itself between the fifteenth and twenty-second. The fluctuating buboes frequently retarded, ten days longer, the inflammation with the tension of the skin abating and increasing by turns, and the tumor from the form of an egg becoming flattish. After thus alternating several times, it at length

⁵ In a boy who died the fourth day, whom I visited the third, I found an axillary bubo, the upper part of which was of a pale bluish colour. See also Case LXVI.

⁶ Some of the French surgeons who attempted the cure of buboes by an early extirpation of the gland, have distinguished several varieties of these tumors, which could never have been known but by dissection. M. Geoffroy, in particular, reckons three sorts that fell under his observation, in the third of which the glands were always found in a gangrenous state. *Traité de la Peste*, P. i. p. 431. See Obs. iii, vi, vii, &c.

The Observations of M. Geoffroy afford many curious remarks. They are rather too much interlarded with theory; and he, in general, ascribes too much to the tumors, as if the alarming symptoms, so common in the disease, arose chiefly from the state of the morbid glands.

Q 2

opened;

BOOK II. opened; for where the bubo dispersed, it rarely varied in the manner now described.

Such was, in general, the progress of the tumors, when treated simply with common poultices. Where stimulant applications were employed, some variation was produced in the period of external inflammation, but little or none, so far as I could observe in the suppuration of the gland: that, in all appearance depending, as in most other cases, more on the internal state of the disease than on topical remedies. The suppuration however of the gland being sometimes complete, while that of the teguments went on sluggishly, the matter already formed was unable of itself to effect an exit, a circumstance manifest sometimes from the touch; sometimes from the troublesome sinuous abscesses, consequent to the neglect of an artificial opening in proper time; but the rare occurrence of such cases, in comparison with the multitude wherein the buboes left to open spontaneously, were successfully cured with the most superficial dressings, rendered it more than probable, that the internal and external suppuration, where not disturbed by the officious interposition of art, in general advanced conjointly in just measure, and the skin either burst at the proper time, or the delay of a few days proved of little or no detriment.

The buboes that did not terminate in suppuration, usually dispersed gradually, and disappeared entirely in the second month; but of the inguinal tumors, some acquiring a schirrous hardness, remained invariably in an indolent, indurated state, for many months before they began to disperse: I saw none that did not disperse ultimately. A similar induration of the glands was likewise observed in cases where the tumor, suppurating partially, had discharged by a small orifice, and where the cure was rendered extremely tedious from the orifice repeatedly closing and opening; a circumstance in some measure owing to neglect, or to ill-conducted surgery.

In a very large proportion of the sick, the buboes made their appearance in the course of the first day; in the fifth class, which was very numerous, they often were the first symptom of infection⁷. But the period of eruption having been more particularly marked under the respective classes, it remains only to say something of the succession of these tumors, where more than one was found in the same subject.

In general, several hours intervened between the eruption of such buboes, and an exacerbation was often (though not always) observed to precede the protrusion of such as appeared later than the third or fourth day⁸. The number of these accessory buboes were two or three, and the time of their eruption various: the fifth, seventh, eighth, tenth, or thirteenth day, and even so late as the twenty-fourth and twenty-eighth⁹. Beyond these limits new buboes were deemed of an ambiguous kind, and will hereafter come under consideration under the head of re-infection. Sometimes all the accessory buboes came to suppuration¹⁰, but for the most part some of them dispersed.

As more than one bubo appeared in the same subject, so likewise were they sometimes conjoined with carbuncles. This was observed in a much larger proportion than the concurrence of inguinal and axillary buboes, or of either with parotids.—A table intended to be subjoined will exhibit in one view the age and sex more particularly subject to the several eruptions, the respective frequency of the different buboes, and their various conjunction with each other, as well as with carbuncles; and as I shall add a few remarks on that table, it were needless to say more on the subject at present.

⁷ Appendix, Case LVIII.

⁸ Case LXV. CIII. CVIII. CIX. CX.

⁹ Case CIX. CX.

¹⁰ Case LXV.

BOOK
II.

The course of axillary buboes varied little from that of the inguinal; their situation, where they grew to any bulk, rendered them more troublesome, but, I think, they more rarely came to suppuration.

Besides the buboes hitherto mentioned, there was another tumor sometimes met with, to which in the journals, by way of distinction, I have given the name of spurious bubo, not being acquainted with one more proper¹¹; the natives give it the same name as the other buboes¹².

It begun in the form of a small, hard, glandular swelling under the skin, not so intensely painful as the ordinary bubo. The gland appeared to be fixed, but the skin, till it became thick and inflamed, could be moved by the finger as if not adherent. This, however, is asserted only from a few cases where I had an opportunity of handling the incipient tumors; for, in general, they were in an advanced state before I saw them. They sometimes came to suppuration in the same manner as the others, but in general more slowly. The skin retained its natural colour, till the sixth or eighth day, that the swelling had become considerably protuberant: a sufficient distinction from the furuncle or erysipelatous phlegmon. The pain, subsequent to the inflammation, depended partly on the site of the tumor. They sometimes dispersed, but most of those I saw came to suppuration.

They were observed on the head, the forehead, the throat, the shoulder, above the clavicle, the neck, on or above the scapulæ, the back, the side, under the breast, the belly, the hip, hind part of the thigh, near the ham, the leg, the scrotum, the arm near the usual place of issues, inside of the arm, near the elbow, outside of the fore arm, and near the wrist. Those on

¹¹ Case V. XXX. LXXX. LXXXI.

¹² See Bindius, lib. ii. p. 85.

the scapulæ or back grew sometimes to a large size, and from the omission of a timely incision were apt to produce troublesome abscesses; in other parts, I never saw the largest exceed the size of a middling hen egg; and, usually opening of themselves sooner or later, they healed kindly.

I observed none appear earlier in the disease than the second or third day. I seldom found them alone, but commonly in concurrence either with buboes or carbuncles, without, however, any sympathetic connection; being protruded at different times, and in parts distant, or on different sides¹³.

¹³ It is a remark of Diemerbroeck, that Zacutus Lusitanus differs from all other practitioners, in pretending to have met with buboes in other places than the groin, axilla, &c. "Se in magna quadam peste, non tantum in dictis locis (retro Aures, Collo, &c.) sed in aliis quoque corporis partibus, simul multos bubones vidisse, ut in capite, in Nucha, in humeris, thorace, umbilico, femure & tibia, sed cum talibus bubonibus omnes ægros periisse." Diemerbroeck regards all this as a mistake; but that Zacutus must have met with the tumors he mentions, however denominated, can hardly admit of a doubt. De Peste, p. 66.

I find nothing on the subject in Hodges; but in the plague of Dantzick, in 1709, Doctor Gotwald mentions furuncles, which he says, "differ from common buboes in that they appear mostly in the fleshy parts, to the number of five, seven, or nine in one body. They are sometimes red and appear more prominent than the buboes, with very violent pains, disturbing the patient's rest. They are always attended with fever, and a pain in the back and belly, the other symptoms are much the same as in buboes." Goodwin's Historical Account, p. 49.

M. Geoffrey, a French surgeon of Provence, in 1720, takes notice of malignant abscesses, which he says, differs from the bubo in the matter not being contained in a cyst, p. 423. "Les abcès malins que j'ai vûs en plusieurs parties du corps pendant le cours de cette maladie dans cette ville, sont comme des tumeurs froides. La partie où est la tumeur est sans inflammation. S'il ne suivent aucun cours de ventre les autres symptômes ne sont pas fâcheux. Je les traite comme la première espèce de bubons. La matière qui en sortent est bien différente de celle de ces derniers. Je l'ai trouvée souvent de la couleur du petit lait, aussi rarifiée, & très puante, comme on verra dans une Observation d'une fille de 25 Ans. Ce que j'ai remarqué de particulier dans ces abcès malins, à quoi je prie le lecteur de faire attention, c'est de petit vers vivans. Traité de la Peste, p. i. p. 435. See Obs. v. viii."

BOOK
II.

The parotids swelled more rapidly, grew to a larger size, and were more tedious in coming to suppuration than the other buboes: for the most part indeed, they remained indurated a considerable time, and then dispersed slowly. Where they came to suppuration, it was, in general, partially, the rest of the tumor remaining hard, and the orifice of the abscess closing and opening repeatedly; a circumstance owing probably to improper treatment, for the lancet was seldom employed. Where the case terminated fatally, they never became soft, though sometimes inflamed externally; but, increasing to a large size, the patient perished as if by suffocation¹⁴.

The parotid was mostly incident to children and youth, and, where it happened to be the sole eruption, portended no good. The glands on both sides sometimes were affected; more usually on one side only. Where they advanced, accompanied with much pain, some of the neighbouring glands usually suffered from sympathy, the pain and swelling of which decreased with that of the parotid.

The cervical and maxillary glands were also, however, originally affected. In the first case, one or two glands only came forward, the others remained scattered under the skin, like hard peas, as often happens in common colds, or in children who have got the tinea. These original tumors were properly buboes; the others never came to suppuration, whether produced from the pain of the parotid or of a carbuncle seated in their vicinity. The first sometimes came to suppuration, but most of those I saw, where the patient recovered, dispersed. I never found them the sole pestilential eruption.

It has been already remarked, that carbuncles were seldom met with earlier than the month of May, and therefore, previously to that period, the common pestilential tumor was the bubo;

¹⁴ Case IV. XXVII. XXXII. LXIV. LXVI. LXXX. XCIX.

it may be added that the carbuncle growing rife in the progress of the summer, became gradually less common in the autumn, and very rarely was observed in the winter. CHAP.
IV.

The same eruption appears under various forms, as it happens to be viewed in its different stages, and hence, perhaps, the varieties of the carbuncle have sometimes been erroneously multiplied.¹⁵ I will not be confident of the not having fallen into the like

¹⁵ The same carbuncle varies its appearance very much in its progressive stages, and opportunities are not frequent of inspecting them the moment of their eruption. In this respect, the similitude at first, of those I have described as different, may be greater than I imagined; for I had occasion to see very few till several hours after their eruption.

M. Geofroy, a very active and intrepid practitioner of Provence, observed three sorts of carbuncles. “ La première étoit rouge, avec une petite point noir au milieu. “ La seconde étoit de couleur de citron, & la peau sèche comme un parchemin. La “ troisième étoit d’abord toute noire. Ce sont ces derniers charbons qui ont régné “ plus que les autres.” *Traité de la Peste*, p. i. p. 436.

I think there can be little doubt that this description was drawn from carbuncles viewed at different periods: which is rendered still more probable from his mentioning the third sort as being the most common; for the several carbuncles, however different in their early stage, at a certain period became black, and many of them in the covered parts of the body, had arrived to that state before they were observed by the attendants. It is very improbable that a carbuncle should be black the instant of its protrusion, and no such circumstance is mentioned by contemporary observers. To suppose all the three sorts of M. Geofroy to have made their first appearance under the form of small red pimples, will be more agreeable to general experience.

“ Carbunculus—fere autem oritur ex pustula exili, milii semenis magnitudine “ interdum vero multæ profiliunt, primo quidem pruritu, deinde rubore, ardore “ doloreque vehementi. Hoc vero sensim incremente, pars uritur, crustasumque “ ulcus quasi candenti ferro inducitur, idque vel nigrum vel cinereum. Nonnun- “ quam et a crustuoso ulcere, sive pustula initium sumit.” *Forestus*, lib. vi. Obs. 12. Schol.

Diemerbroeck describes the commencement of the carbuncle in the same manner. *De Peste*, p. 65.

According to Hodges, “ The carbuncle is a small eruption whose contents are “ soon discharged, after which it appears in a crusty tubercle, about the bigness of a “ millet seed, gradually spreading, and encompassed with a very fiery red circle.”

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“ In

BOOK II. like mistake. The seeming varieties that came under my observation were five, which I shall attempt to describe; but at the same

“ In the beginning the part is affected with a sharp pricking pain, and in a little time becomes extremely hot, when the cuticle is raised up into a blister containing a thin ichor. When this blister is broke an eschar is left behind, which crusts over, now sooner, now later. The size and colour of the carbuncle is uncertain. When the inflammation is at its height, it is very red, for the most part dusky, often livid, and sometimes black. *Loimologia*, p. 122, 127.

The same author, in a letter to a person of quality, May 1666, p. 25. “ A carbuncle is a pestilential sore, appearing at first with a very small pustule, and a circle about it of a red flaming colour; which pustule either opening, or rather the liquor in it being spent by the extreme heat of the adjacent part, soon hardens and grows crusty, the encompassing inflammation spreading itself, and by reason of the corrosive quality of the humour, cauterizing that place where it fixes.” *Collection of scarce Pieces on the Plague*, Lond. 1721.

The Montpellier physicians describe the carbuncles thus: “ Ils paroissent d’abord sous la forme d’une pustule ou tumeur blanchâtre, jaunâtre, ou rougeâtre, pâle dans son milieu, ou tirant sur le rouge obscur, qui devenoit insensiblement noirâtre crustacée, & surtout vers les bords, d’ailleurs bigarrée souvent de diverse couleurs, de manière que selon ce que prédominoit & le excès ou le défaut de sensibilité & d’elevation on pouvoit donner le nom ou de charbon phlegmoneux, ou de charbon érysipléatoux ou de gangreneux.” *Traité de la Peste*, p. i p. 239.

Doctor Gotwald observed four sorts of carbuncles at Dantzick, according to Goodwin.

I. “ The first rises pretty high, is of a dark brown colour, the cuticle appearing as if it were burnt, and it is surrounded with a lead coloured circle. In the beginning it is no bigger than a pea; but, if not prevented, it soon grows to the size of a crown piece; inwardly it is moister than the rest, and may be more easily separated; its seat is generally in the fleshy parts, as on the shoulders, neck, hip, arms and legs.

II. “ The second lye a little deeper, and do not rise so high; the eschar in the middle of it is entirely dark, and ash coloured, full of small chops, as if it would burst by too great dryness:—it has a strong lead coloured circle, behind which the sound flesh looks red and shining. It eats into the flesh round about it, and takes deep root: it generally fixes in the most fleshy parts, buttocks, calves, &c.

III. “ The third is not very large, at first, it appears like a blood swelling, not so dark as the former, with a wrinkled skin; as it increases, small blisters arise in the middle and form an eschar, in little clusters, which as an ingenious physician observed,

same time have no doubt there may be others which I had no opportunity of seeing¹⁶.

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IV.

The *First*¹⁷ appeared in the form of a roundish pustule, resembling a dried pea, of which one half had been cut off, and the flat part applied to the skin, of a dusky colour, and the upper surface a little wrinkled and yellowish. The surrounding skin was hard, and more or less inflamed, forming a narrow rim round the tumor, which was very painful from the first, becoming more and more intensely so with the rapid increase of the tumor, that soon arrived to the size of a nutmeg, or sometimes to that of a walnut¹⁸. The surface at top became now rougher, and a dusky yellowish matter seemed to lie under the wrinkled cuticle. But some variation was observed in this circumstance, it being sometimes moist, at other times dry and crusty. The rest of the tumor, as it advanced, assumed a deeper, darkish red colour; and the rim round it, spreading and more inflamed, assumed various hues at different times, but none of them so constant as to specificate the rim, or circle, from those of other carbuncles; at least so far as I was able to observe.

served, were small carbuncles. They commonly are situated in membranous and tendinous parts about the knees, behind the ears, upon the toes, &c.

IV. "The fourth is the most curious, as Purman in his Treatise of the Plague has well observed. Sisonius calls them pale, livid, ulcerous papulæ: they appear with a high yellowish blister, which seems full of corruption: the circle round it is first red, then of an ash colour: the blister soon falls, and with the carbuncle appears scarce so big as a pepper corn, continually eating deeper and wider. They are seated upon the cartilaginous or gristly parts. Gotwald found them near the pit of the stomach, upon the cartilago ensiformis, and short ribs. All the four take deep root and burn very violently at first, but the two former most of all." Historical Account of the Plague, &c. R. Goodwin, London, 1743, p. 49.

¹⁶ M. Emeric mentions a streak, or kind of tail, attending carbuncles on the fingers, of which I have seen two or three instances. *Traité de la Peste*, p. 216.

¹⁷ Case XV. XC.

¹⁸ I saw none myself larger than a walnut, but was informed, that they arrived to a size considerably larger.

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II.

On the third, fourth, or fifth day a gangrenous crust began to form in the middle, which, soon spreading, occupied the whole face of the tumor, exactly resembling the black eschar formed by a caustic. This, in such patients as recovered, gradually showed signs of suppuration round the edges, and separating of itself, left an ulcer of various depth, which continued to discharge, more or less, copiously for some time: but where the case terminated fatally, the crust or eschar, for the most part remained dry, with little appearance of casting off. In some cases the mortification, not circumscribed in the prominent tumor, spread to the inflamed circle, and formed a progressive gangrene of considerable extent¹⁹.

The *Second*²⁰ appeared in the form of a small angry pustule, flatter in figure and more intensely inflamed than the former; but it did not rise so high, was more disposed to spread, and usually grew black the second day. When once the black crust

¹⁹ In June 1762, a young man and his mother were taken ill together on the same day. The mother died the day following without any appearance of eruptions. The son died the fourth day of his illness, having from the first suffered incessant vomiting. The sole eruption was a carbuncle on the hip, which soon became black, and the gangrene occupied a space between two and three inches in diameter.

The pestilential carbuncle never arrived to the size of other malignant carbuncles which I had met with in that country, in seasons not pestilential: it varied from them also in several other respects. Those were more protuberant, more conical, and gradually spread at bottom as they rose in height. The apex was more pointed, intensely inflamed, and, bursting, yielded a small quantity of concocted pus; but instead of the suppuration advancing kindly, the increasing tumor spread and grew harder below, while the partial suppuration above remained inconsiderable, and was of no service. From the beginning, they were attended with excruciating pain, and after harassing the patient for thirty or forty days, a bad fever supervening towards the end, they usually terminated in gangrene: where a fever supervened earlier, their course was finished sooner. The shoulder and the back were the parts chiefly affected, and the tumors sometimes were as large as a middling orange.

²⁰ Appendix, Case XIII. XX. CVII.

was

was formed, it could not easily be distinguished from the former; but was always less prominent, and the inflamed margin was, for the most part, of a brighter, glistening red. This carbuncle seemed to me to be less common, and peculiarly to affect the fingers and extreme joints; it sometimes made strange havock in tendinous parts²¹.

CHAP.
IV.

The *Third* variety of carbuncle²² appeared to me to begin in a very different manner from the two former. The cuticle was raised at once into a blister of the size of a horse bean, half filled with a dusky yellow, or blackish fluid; round which the skin was less tense, and of a paler red than in the others. When the blister broke, the cuticle collapsing, remained shrivelled on the flat surface, which was dusky at first, but soon became black, and, only that it was less elevated than the second variety, might on the third and fourth days have easily passed for the same eruption. In the advanced state the circle encompassing the eschar became of a deeper red, or livid: but I never observed the gangrene spread beyond the first eschar, which was about the size of a sixpence, and always round.

This eruption, like the others, was extremely painful, and four, five, or six were sometimes found in the same subject²³.

The

²¹ Case CVII.

²² Case XV. LXXXIV.

²³ This I conceive to be the fourth species of Gotwald, and what Hodges terms blains, describing them as "Vesications of size from a pea to a nutmeg, encompassed with a variegated circle, generally reddish. They arose with exquisite and shooting pain, and contained an ichor of a yellowish or straw colour, which was so acrid or caustic, that it soon corroded the vesicle and burst out, of a colour yellowish, livid, or black.

"These pustules broke out in many parts of the body; their station and number being uncertain; sometimes few, sometimes many: in one case the whole body was covered all over with them.

They

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II.

The *Fourth*²⁴ appeared at first like a small red spot, perceptibly raised, only to the finger. This rising somewhat and spreading, assumed, in twenty-four hours or sooner, the form of a flattish dusky pustule, surrounded by a light rose coloured margin. The eruptions soon became very painful, and in certain parts, as on the face, near the eyes, &c. occasioned tumefaction, without inflammation of the skin, much beyond the margin or inflamed circle. Its progress also was rapid; for it often became black the second day, and, without growing more prominent, the mortification spread circularly. These tumors were never observed

“ They sometimes broke out without any other previous indications of infection.
“ But whensoever the pain and heat of the part was so aggravated that no applications could assuage it, there was commonly danger of mortification—and, once I
“ remember a vesicle to change into a carbuncle. Hodges Loimolog. p. 110.

From the last circumstance it would seem that Hodges conceived them to be distinct from carbuncles; but the instance he produces shows they sometimes changed into that eruption; and it is very probable he met with them in other instances in the vesicular state (which they preserved sometimes for twenty or thirty hours) without having opportunity, in the multiplicity of business, of attending to their change; and seeing them at other times, when the eschar was formed, might easily confound them with other carbuncles.

The Directions of the College of Physicians, published in 1665, describe the blain as something like the carbuncle, but less fiery and corrosive.

In article V. respecting searthers, “ Whether there be any blains which may rise
“ in any part of the body in form of a blister, much bigger than the small-pox, of a
“ straw colour, or livid colour, which latter is the worse; either of them hath a
“ reddish circuit, something swollen, round about it, which circuit remains after
“ the blister is broken, encompassing the sore.” Certain Necessary Directions, by the King’s special Command, London, 1665.

This, though distinguished from the carbuncle, I imagine to be the same with what I have termed the third variety of that eruption. Most of those I saw formed a black eschar, but sometimes the patient died while they were yet in a vesicular state, or just broken.

²⁴ Case XV. XVI.

but

but in concurrence with other eruptions: they never were single, and in some cases were pretty numerous.

CHAP.
IV.
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The *Fifth*²⁵ was at first a pimple resembling a small-pock on the second day of eruption, and encircled by a margin, more or less red, advancing with various rapidity; it rose in a conical shape to twice the size of a large distinct small-pock, with a blunt yellowish point; but in place of suppurating the point became black, and presented a round black eschar, the size of a large field pea, more prominent than the fourth variety, but which after its first formation was not observed to spread further. The margin became of a dusky red, in the advanced state, but brightened as suppuration took place; and the eschar separated spontaneously²⁶.

As I had no opportunity of seeing this pustule earlier than the second day, I cannot tell how far it might at first resemble the fourth variety, but from the time I saw it, its shape was more conical, and it was more prominent. After the complete formation of the eschars, the third, fourth, and fifth varieties bore a resemblance to each other, varying, on a cursory view, only in size, and being more or less raised above the skin: but their progress, when watched from the first hours of eruption, was certainly different²⁷.

The

²⁵ Appendix, Case V. XV.

²⁶ Case XX. LXXXIV. CVII.

²⁷ This is clearly the eruption mentioned by Timoni, and the pustules charbonneuses of the French physicians at Marseilles.

“Pustula rubicunda, ad semper Ciceris magnitudinem, in extremo purulenta maligna est: in lividum enim carbunculum brevi excrevit.” Timoni, Phil. Trans.

“Les pustules (charbonneuse) s’élèvent comme de petits furoncles, ou boutons, en forme de pain de sucre avec une rougeur à la base & un point blanc à la cime. Dans quelques heures ce point blanc se dessèche & devient noir, la tumeur s’étend, la rougeur diminue & se forme une dureté tout autour de la tumeur. Ces
pustules

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II.

The carbuncles in their eruption preserved no regular period. They sometimes appeared the first day²⁸, but commonly in the more

“ pustules sont fort douloureuses & font une escarre comme les charbons, elles paroissent ou au commencement ou dans la suite du mal, & dans le troisième & dernier période elles sortoient avant que la fièvre se déclarât & que la malade sentît aucun mal. On en a vu quelquefois sortir sur les bubons & sur les parotides, mais celles là n’ont jamais été d’un bon augure. M. Bertrand.” *Traité de la Peste*, p. i. p. 375.

The eruption mentioned by Russell must have resembled this in its first stage, but differed materially in its last. “ A few of the sick had pustules, which were filled with well concocted matter, without any livid or discoloured circle about them: these, after a certain time, dried up and fell off, as commonly happens in the distinct small-pox; and as all the patients who had this eruption recovered, it was considered as a favourable symptom.” *Nat. Hist.*

This pustule was not met with in 1762, for all I saw turned black.

The papulæ ardentes, mentioned by Gotwald, bear resemblance in some respect to a certain state of some of the carbuncular pustules. “ He observed the papulæ ardentes, or fire bladders, in two patients only, both which recovered. They were as broad as a shilling, of an irregular shape, and the skin seemed as it were shrivelled by fire; at length they emitted a small quantity of moisture, and vanished in a few days. They appeared on the belly, thighs, and legs, attended with a slight shivering,” &c. *Goodwin’s Historical Account*, p. 51.

The eruption mentioned by Hodges under the name of tokens, are described in such a manner as to leave it doubtful whether they belong to the class of carbuncles or of maculæ; though the author himself would seem to have considered them rather as distinct from the carbuncle. As they appeared to have been of material consequence in the prognostic, and were considered vulgarly as pledges or forewarnings of death, it may be worth while to attempt to distinguish them with more precision, as far as can be done by comparing the author’s own account, as it is found in different parts of his works.

In the *Loimologia*, p. 133, he says, “ They are nothing else than minute and distinct blasts, which have their origin from within, and rise up with a little pyramidal protuberance, having the pestilential poison chiefly collected at their basis, and according to the accustomed dispersion of such agents, gradually tainting the neighbouring parts.”

In the *Letter to a Person of Quality*, p. 26, he says, “ These tokens are spots upon the skin of a diverse figure and colour, proceeding from chiefly extravasated blood,

²⁸ Case XV. LII. LXXVII.

more advanced stages; and where several were found in the same subject, they were protruded in quick succession²⁹. I saw none appear

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IV.

“ blood, which by reason of its stagnation putrefies, and produces such mortifications discolouring the skin, so then these spots which are the true tokens, are
“ profound mortifications caused by the extinction of natural heat upon the account
“ of highly prevailing malignity, because many spots arising upon the skin were
“ only cutaneous, and so far imposed on many searchers and unskilful viewers of
“ them, that they declared them to be true tokens: experiment was always made
“ upon these discolorations by a lancet or large needle, to try whether that part so
“ affected was sensible; if not, then it was most apparent that such persons had
“ those fatal marks upon their bodies, which were certain forerunners of death; but
“ if the patient did discover sense upon the pricking or incision, then such spots
“ being only cutaneous were not esteemed deadly.”

If this passage be compared with what Diemerbroeck says, on the subject of exanthemata (see subsequent note) it would at first seem that the tokens at London were the same with the maculæ mortis at Nimiguen, which the author says arose from the internal parts, and terminated in the skin, being occasioned by the extinction and extravasation of the animal spirits: and he conceives the generality of writers to have been mistaken in thinking these spots merely superficial on the skin, and proceeding from putrefaction, ebullition, &c. in the blood and humours.

Diemerbroeck, p. 65. lib. iv. Hist. 32.

But Hodges describes the token as rising above the skin; a property that certainly did not belong to the maculæ of Diemerbroeck, and which, with other circumstances, seems to bring them, at least sometimes, nearer to some variety of the carbuncle.

“ The tokens (says Hodges’s Loimolog. p. 133—139) were of various sizes,
“ sometimes as small as a pin’s head, sometimes larger, and as broad as a silver
“ penny. Some were depressed, others prominent; they differed also in their
“ degrees of hardness, some being easily penetrated with a needle or penknife, while
“ others more callous or horny were penetrated with more difficulty. They were
“ not all of the same colour, but often bore so strong a resemblance to warts that
“ they were often mistaken for them, not only by the vulgar, but even by the surgeons; and the author himself was sometimes obliged to have recourse to a
“ needle for distinguishing them. A quick sensibility was a good sign, and those
“ which went no farther than the skin would oftentimes slough off; whereas when
“ they went deeper, they were deemed dangerous, especially when the part lost its
“ feeling and threatened sphacelation.”

In the letter above cited he observes, “ The tokens were not of one size or bigness, some being broader than a silver penny, others at first very small, by de-

S

“ gress

²⁹ Case LI.

BOOK appear later than the eighteenth day. Of those of the first and
 11. second species, seldom more than one or two were observed in the
 same subject, in general one only; the other varieties concurred
 in greater number; and, including those of the fifth, I have

“ grees enlarging and spreading themselves; to the touch they seem hard, not unlike
 “ little kernels under the skin, the superficies being smooth; yet I saw one where
 “ these tokens put out with little blisters upon them.—In some the colour was
 “ reddish, with a circle inclining to blue, in others they represented a faint blue,
 “ the circle being blackish, many were of a brownish dusky colour, like rust of iron
 “ or moles in some bodies.—When I assayed to prove (some of) them, I found
 “ them almost impenetrable,” p. 27, 28.

Upon comparing the above passages, it would seem that two distinct eruptions
 are blended by the author in one description. Where the eruption was like little
 kernels under the skin, or protuberant, or resembling warts, there could have been
 no difficulty in at once distinguishing it from petechiæ, which never are pro-
 minent; and where they were surrounded by a blue or blackish circle, or put out
 blisters, and from being very small spread and enlarged themselves, so many pro-
 perties belonging to carbuncles would tempt one to conceive them of that species;
 only that their insensibility or absence of pain, are circumstances against such con-
 jectures: all the known varieties of that tumor being attended with pain.

But where Hodges remarks (Letter, p. 37.) “ That very many were puzzled to
 “ distinguish aright between *these marks* and the petechiæ pestilenciales, or pestilen-
 “ tial appearances in spotted fevers, as also scorbutical spots frequently inter-
 “ spersed among them; and that he had taken notice of many mistakes upon both
 “ these accounts; or where he himself had recourse to the needle or lancet, to
 “ discriminate cutaneous superficial spots from those more deeply rooted, which
 “ were true tokens; a species of maculæ, or petechiæ, like that of Diemerbroeck,
 “ are certainly meant, and not a prominent eruption like the one described imme-
 “ diately before.”

What he adds further from anatomical observations agrees nearly with Diemer-
 broeck's notion of the maculæ: “ That the tokens have their original and rise from
 “ within, and afterwards externally show themselves, which is evident, because the
 “ basis of them is larger than their outward appearance, and the internal parts are
 “ found very often spotted, when there is no discoloration visible on the skin.
 “ Letter, p. 27.”

I shall only remark farther, that in the Loimologia, petechiæ are described distinct
 from tokens, p. 131, but in the Letter, so often cited, they are only mentioned
 occasionally, under the title of Tokens.

some-

sometimes counted between twenty and thirty, but this happened very rarely. Where the sick were in a state of insensibility, the smaller carbuncles often remained undiscovered for several days, especially when seated in parts less exposed to view; but all of them were attended with much pain, and in certain situations, and habits of body, the pain was excruciating³⁰.

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IV.

No external part whatever was exempt from the carbuncles. I have met with them every where, the penis and scrotum not excepted; but never observed them on the tongue³¹, the tonsils, or internal parts of the mouth; though in carbuncles on the cheek, near the corner of the mouth, the gangrene spread inwards; and in one instance of a carbuncle on the eye-brow, the gangrene spreading upon the globe of the eye, had destroyed part of it³².

The complication of eruptions, of all others the most common, was that of carbuncles and buboes, and in general they appeared on the same side, that is, in axillary or inguinal buboes, the carbuncles usually were protruded on the arm, leg, or thigh of the same side with the buboes. There were, however, frequent exceptions to this, the carbuncles and buboes appearing in opposite sides. A carbuncle sometimes arose near the edge of a bubo, but I never saw one protrude from the body of the tumor.

A carbuncle on the arm or hand was sometimes followed by a sympathetic swelling of one or two of the axillary glands³³; but

³⁰ Case CVII.

³¹ Timoni makes mention of carbuncles on the tongue. *Philos. Trans.* M. Verny met with them in the throat. *Traité de la Peste*, p. 289.

³² The subject was a young woman who recovered. I saw her not before the fifteenth day. She had a bubo on the right thigh, which at first inflamed, but afterwards discessed. The parotids on each side were swelled, and one opened; she escaped with the loss of one eye.

³³ Case CVII.

BOOK
II.

it was rare to see the like swelling in the inguinal glands, from carbuncles on the thigh, leg or foot. The sympathetic swellings were less intensely painful than primary buboes, and dispersed upon the carbuncles coming kindly to suppuration: whereas primary buboes were little affected in their progress to maturation by the discharge from the carbuncles.

Common boils or furuncles were observed in very few cases joined with pestilential tumors, from which they were easily distinguished by their sudden inflammation, their rising to a point, and their discharge of good matter, or a white core. They were in size much larger than the pustules resembling a ripe small pock, mentioned in a former note.

The surgical treatment of the pestilential tumors was extremely simple, and shall be described in the following chapter, where it is my intention to introduce, by way of note, a few remarks on the harsh, operose mode of treating the buboes, which was at first adopted, and afterwards rejected by the Montpelier physicians in 1720.

Petechiæ³⁴ were by no means a common eruption in the plague. They,

³⁴ “ Exanthemata pestilentialia (quæ vulgus mortis vel pestis Maculas, Itali PETECHIAS, PETICULAS et LENTICULAS, Galli PURPURAS et PAPILLONES, Belgæ GRANUM PIPERIS appellant) sunt maculæ purpureæ vel rubræ, vel nigræ aliufve coloris, ut plurimum rotundæ, aliquando oblongæ, latæ aliufve formæ in summa cute efflorescentes. Nonnulli distinguunt inter exanthemata et maculas, quod illa habeant eminentiam et sint de genere tumorum, hæ non. Verum nos omiffa hac curiofa magis quam neceffaria diffinitione ad exemplum Fernelii utroque vocabulo indifferentur pro eadem re utimur, Diemerb. p. 72.”

The author is diffufe on this subject, and thinks it a mistaken though prevalent notion, that the maculæ are merely superficial in the skin, proceeding from putrefaction, ebullition, &c. in the blood or humours: on the contrary, he affirms, they arise from the internal parts, even the periosteum, broad at the base, and tapering to their termination in the skin, being produced by the extinction and extravasation of the vital spirits. P. 65, vide lib. iv. Hist. 32.

They, for the most part, predicted a fatal termination,³⁵ but not without exception.³⁶

CHAP.
IV.

Those

Now this answers exactly to one species of the tokens described by Hodges, which therefore may be reckoned the same with the maculæ mortis of Diemerbroeck, and was probably the only one observed at Nimiguen; for though that author uses indiscriminately the terms exanthema and macula, yet is evident he never meant by the macula mortis an eruption that rises above the skin, because he expressly affirms the pestilential exanthemata are never raised. “Vera exanthemata pestilentialia fiant sine tumore” (p. 72.)

The prominent eruption described by Hodges (Note, p. 214) was therefore different from this; more probably not observed at Nimiguen, than omitted in the account of that plague.

In looking into some of the writers contemporary with Hodges, who practised at London, their description of the tokens leave it without doubt, that, some of them, at least, belonged to the class of Petechiæ. In the Medela Pestis, by Richard Kephale, published in 1665, and dedicated to the Lord Mayor, I find the following passage, p. 84, “Tokens, otherwise called God’s Tokens, are commonly of the bigness of a flea bitten spot, sometime much bigger; their colour is according to the predominacy of the humour in the body; red or reddish if choler; pale blue, or dark blue, if phlegm; leaden, or blackish, if melancholy abound; but they have ever a circle about them: the red ones a purplish circle, and the others a reddish circle: they appear most commonly on the breast and back; and sometimes on the neck, arms and thighs—in some bodies there will be very many; in some but one or two, or very few. They usually shew themselves on the third, fourth, fifth, or seventh day, sometimes not till death, the venom tyrannizing over the dead carcase. If they be skilfully dissected in the dead body, you may find some half way deep in the flesh, and some in the muscles of the breast have been followed with the incision knife even to the rib bones.” Medela Pestis, Lond. 1665.

In the Loimotomia by G. Thompson, M. D. a book written in a high chemical, enthusiastic stile, is the following passage. “The silly old women, called searchers, can report, upon the bare aspect of a pestilential corps, when they see tumours of the emunctorees, cauterizing carbuncles, blains, pustules, and those stigmata nigra they call the tokens, in the superficies of the skin, that this or that person died of the sickness.” Loimotomia, G. Thompson, M. D. Lond. 1666, p. 47.

In the directions published by the College of Physicians, in the year 1665, there is an additional article, not to be found in those of 1636 or 1603 (both which refer to preceding orders in the reign of Elizabeth) and which article I imagine was then first composed, containing directions for the searchers. The tokens are clearly described as maculæ or petechiæ.

Article

³⁵ Case VII. XX. LXXII. CIV.

³⁶ Case CVII.

BOOK
II.

Those I had most frequent occasion to observe were round, and in size somewhat smaller than a recent flea bite. The colour at first dusky, sometimes a pale, purplish red: but in either case it changed to livid before death. They were distinct, few in number, and scattered at a distance irregularly from each other; and mostly remarked on the breast and mastoid muscles. The time of eruption was various, but generally late in the disease.³⁷ Where they did not make their appearance till near the fatal period, the change of colour was less remarkable, they being, in that case, from the first livid or very dusky.

I have

Article V. "Whether there be any tokens, which are spots arising upon the skin, chiefly about the breast and back, but sometimes, also, in other parts. Their colour is something various, sometimes more reddish, sometimes inclining a little towards a faint blue, and sometimes brownish, mixt with blue; the red ones have often a reddish circle about them, the brownish a reddish."

These orders are dated 26th May, 1665, and consequently anterior to Hodge's *Loimologia*, &c.

³⁷ On the subject of petechiæ, Hodges says, "The pestilential petechiæ were distinguished from the spots of malignant fever by their being deeper coloured;—they do not fix in the same parts, and sometimes they disappear, after a short stay in one place, and immediately rise in others.—They were sometimes few, but most commonly very numerous.—The colour was not always the same, sometimes they were red or purple, at others yellow, and sometimes livid or black." *Loimologia*, p. 131, 133.

Gotwald descends to a more particular description. "The petechiæ or malignant spots are dangerous. There are four kinds.

"The first look like flea bites, and are reddish at the first appearance, but soon grow brown, but last of all black; they are round, and shew themselves on all parts of the body, except the face, where they are not always found.

"The second species are in the form of lentils, and are ruddy at first, but in twenty-four hours grow dark and ash coloured, they spread as the former, all over the body.

"The third sort appears in large brown spots, of the same colour as the former, but they are only scattered here and there, sometimes they are intermixed with the lentil kind.

"The

I have observed smaller petechiæ of a dark red, or dusky colour, sometimes round, but often of irregular figure. These were more numerous, closer together, sometimes confluent; and were remarked, in a few instances, in the interstices of the former: but such a concurrence, as well as the variety itself, was uncommon.

CHAP.
IV.

A certain marbled appearance of the skin was sometimes visible in different parts, in the height of the disease, or some hours before death. The variegating colours were a pale, faint blue, and darkish red, which at different times were more or less obscure, but never bright. It was not permanent till towards the end, but vanished without leaving any traces behind, and returned repeatedly at short intervals. In the few instances I met with, no distinct or confluent spots like petechiæ were discernible, though perhaps something of that kind might become visible after death.

An erysipelatous redness of the skin, which only remained visible for a short while and did not return, was observed in a few cases,³⁸ but occurred so rarely, that it hardly deserves to be ranked among pestilential exanthemata.

The skin, in various places, was sometimes deformed by narrow streaks of a reddish purple, or livid colour.³⁹ When such took possession of the face, they gave a frightful appearance to the countenance, and frequently produced such an alteration of features, so completely disguised the patient, as to render him hardly knowable by his acquaintance.⁴⁰ A streak nearly of the same kind

was

“The fourth species is not unlike the measles, and spreads all over the body; in two or three days they seem to rise to a head, in little blisters, but contains no matter; on the fifth day they dry away, and then the patient's death is not far off.” Goodwin's *Historical Account*, p. 50.

³⁸ Case XVII.

³⁹ Case IV. XVI. LV.

⁴⁰ “Nam et in ore eorum cernes aliquid pestilentis coloris cum partim erysipelato-
sum, partim colorem habent despaentibus serpentibus similem per pluras partes dif-
fusam.” Forestus, lib. vi. Obs. xi. Schol.

was sometimes remarked darting from the edges of the buboes and carbuncles.⁴¹

The vibices or weals were much longer and broader, and more exactly resembled the marks left in the fleshy parts by blows or stripes, they were found chiefly on the thighs, buttock, and back, and made their appearance several hours before death, in some cases;⁴² but in others not till after.

Large blue or purple spots, the maculæ magnæ of authors were sometimes observed with or without the vibices, a little while before the patient expired,⁴³ but most commonly were discovered only on the corpse.⁴⁴ Their figure in general was round, sometimes irregular.⁴⁵

Besides

Gotwald describes the vibices as deforming the face: "they cover the face as high as the nose, and from thence spread to the forehead, disfiguring the patient in a frightful manner."

⁴¹ M. Emeric gives two instances of this kind. "Les charbons qui viennent sur les articulations, sont presque tous mortels, & ceux qui ont une queue couleur de cerise qui sont situées aux mêmes endroits sont absolument mortels. J'en ai vu quelques uns, mais entre autres un sur l'articulation de la dernière phalange du pouce de la main droite, avec sa queue couleur de cerise, qui partoît du charbon en ligne droite comme un petit ruban d'environ deux lignes de largeur tout le long de l'intérieur de bras, & se perdoit sous l'aisselle; un autre sur la partie interne de genou gauche, dont la queue se perdoit vers le milieu de la partie interne de la cuisse." *Traité de la Peste*, p. i. p. 216. See also Appendix, Case XXI.

⁴² Case XVII.

⁴³ Case XXIII.

⁴⁴ Case III. XVIII.

⁴⁵ "Sunt autem maculæ modo coloris rubei modo lividi, aut nigri. Nonnullis autem ob virtutem debilem neque maculæ, aut bubones vel anthraces apparent, sed multi post mortem, magna quidem macula nigra circa dorsum spectatur (ut recte ait Montanus quemadmodum nos aliquando observavimus) ut si quis fustibus cæsus esset aut ab alto cecidisset." *Forestus*, lib. vi. Obs. 12. Schol.

Vidimus

Besides the stigmata now described, the whole skin of the thighs, back and shoulders, often turned livid, while the corpse was yet warm.⁴⁶ But this change, as well as the pestilential tumors and other external marks, seldom were attendants on the plague at its first rise, when most wanted for ascertaining the nature of the disease:⁴⁷ when once that was declared, the state of the corpse, as a matter of less consequence, was little attended to.

CHAP.
IV.

I have mentioned before, in the Historical Journal, that the number of infected who applied to me for assistance, during the time I was shut up in 1762, from the middle of May to the 8th or 9th of August, amounted, according to my sick list, to near three thousand; a considerable proportion of which consisted of convalescents, who required little more than topical remedies for their eruptions. Besides enquiring whether the patient had at any former time suffered the plague, I conceived it might be of some utility, with a view subservient to the history of the disease, to mark down the patient's age and sex, as also the situation and state of the eruptions, with the *dies morbi*, at the time of his application; for it was in vain to attempt keeping regular journals of all the cases I had occasion to see: nor were such journals of much consequence, in respect to convalescents already out of all danger. From this diurnal list of infected, written at the time, I have collected two thousand seven hundred cases, attended with eruptions of one kind or other, and upon these, after due arrange-

"Vidimus etiam maculas lividas & nigras oblongas, quasi calamo scriptorio inscriptas, alias quoque majores quasi flagellis inductas nonnullas etiam maximas." Diemerbroeck, de Peste, cap. vii. p. 14.

"Vibices or plague stripes are not observed till the patient be near his end, for they are forerunners of death; they often appear unexpectedly, and shoot up like lightening from the breast to the face, in spots of various colours, blue, green, brown and yellow." Gotwald. Goodwin, p. 47.

⁴⁶ Case I. LV.

⁴⁷ See Forestus, lib. vi. ut supra.

BOOK II. ment, have constructed the following tables, which upon a comparifon with my obfervations in former years, as well as in 1762, before shutting up, and after coming out of confinement, will, I believe, be found to exhibit, with tolerable exactnefs, the comparative ftate of the feveral eruptions in different fexes and ages: except in regard to carbuncles, and thefe, for reafons to be affigned hereafter, I am inclined to think are in reality met with in a proportion fomewhat greater than what is given in the fubfequent tables.

T A B L E I.

Showing in two thoufand feven hundred peftilential cafes, the proportional frequency of the feveral eruptions.

	Inguinal Buboes.	Axillary Buboes.	Parotids.	Carbuncles.	Spurious Buboes.
Men	835	206	58	194	23
Women	641	180	57	150	24
Children	365	183	116	146	27
Total	1841	569	231	490	74

It would appear from the above table, that the inguinal buboes are of all other eruptions, belonging to the plague, the moft common; exceeding the axillary buboes by more than two-thirds, and the carbuncles in proportion ftill greater.

The parotids bear but a fmall proportion to the inguinal buboes, and are chiefly incident to children, and to the youth of either fex. Spurious buboes may be, comparitively, reckoned a very rare eruption.

T A B L E II.

Showing in what proportion inguinal buboes were found to affect the right, left, or both groins; either where they were the

the only eruption, or when they happened to be conjoined with carbuncles or other tumors.

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IV.

	Inguinal Buboes, simple.			Inguinal Buboes, complex.		
	Right Groin.	Left Groin.	Both Groins.	Right Groin.	Left Groin.	Both Groins.
Men -	355	251	85	73	47	24
Women	242	220	61	49	49	20
Children	132	118	29	39	34	13
Total	729	589	175	161	130	57

T A B L E III.

Showing in like manner in what proportion axillary buboes affect either or both axillæ.

	Axillary Buboes, simple.			Axillary Buboes, complex.		
	Right Axilla.	Left Axilla.	Both Axillæ.	Right Axilla.	Left Axilla.	Both Axillæ.
Men -	74	60	3	39	25	5
Women	51	58	2	31	30	8
Children	59	47	4	24	40	9
Total	184	165	9	94	95	22

From the second and third table it would appear, that inguinal buboes are found more frequently in the right than in the left thigh; and that in 1841 cafes, there were only 232 wherein buboes in both thighs occurred in the same subject.

Axillary buboes are also rather more frequent in the right axilla than the left, but the difference is inconsiderable. Axillary buboes in both sides are rare; for in 358 cafes, there occurred only nine instances. It deserves at the same time to be remarked, that buboes in each axilla were more frequent in cafes complicated with other eruptions; for in 211 cafes of this kind, 22 instances of axillary buboes in both sides were met with in the same subject.

T A B L E IV.

Showing the proportion of cases, attended with parotids, carbuncles, and spurious buboes; first where they were the sole eruption, respectively; and secondly, where they were conjoined with inguinal or axillary buboes-

	Parotids.		Carbuncles.		Spurious Buboes.	
	Simple.	Complex.	Simple.	Complex.	Simple.	Complex.
Men -	27	31	29	165	11	12
Women	36	21	27	123	11	13
Children	67	49	29	117	15	12
	<hr/> 130	<hr/> 101	<hr/> 85	<hr/> 405	<hr/> 37	<hr/> 37

It has been already remarked, that the parotids bore a small proportion to the inguinal buboes. In 2700 cases, there were no more than 130 wherein parotids were unaccompanied with other eruptions, and in 67 of those the subjects were children under ten years of age. In 600 complicate cases, the like number of instances were met with, which, being a sixth part, shows sufficiently that they are for the most part conjoined with other eruptions.

Carbuncles, simply by themselves, appear to be still more rare than parotids; but in combination with buboes are much more common; 85 cases out of 2700 were accompanied simply with carbuncles, and even from that number 10 or 12 may be subtracted, being cases where I saw the patient so early, that it was probable other eruptions might appear afterwards in the course of the disease: the rest were convalescents, and the period of the disease too late for the protrusion of other eruptions. In 600 complicated cases, attended with different eruptions under various combinations, two-thirds of the infected had carbuncles.

It was remarked by my brother in the plague of 1742, that carbuncles appeared in about one-half of the infected⁴⁸. In 1762, according to the foregoing table, less than a fifth part of the sick had these eruptions. The plague in this respect may possibly vary in different years; but I conceive my brother's computation to have been only conjectural. I own, however, it appeared to me at the time, from general observation, that carbuncles were proportionally more frequent than the table represents them. This may in some measure be accounted for, by recollecting that a very large proportion of the cases distributed in these tables, consisted of convalescents who applied merely for external remedies, and that multitudes with carbuncles may have perished in the early stages of the disease, which I had not an opportunity, in confinement, of seeing, in the same manner as when I went abroad myself among the infected: I am therefore inclined to think that one-fourth rather than one-fifth part of the infected had carbuncles.

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The spurious buboes would seem, from the table, to be protruded as frequently by themselves as in conjunction with other eruptions; but the same remark is applicable to them which has just been made relative to carbuncles, namely, that some deduction should be made for cases where I perhaps once only saw the patient, very early in the disease, and where other eruptions may have probably been conjoined afterwards. The number of such cases were about fourteen, which would reduce the number of simple cases from thirty-seven to twenty-three.

T A B L E V.

Containing cases in which there was a complication of various eruptions in the same subject.

Men	-	-	-	-	-	232
Women	-	-	-	-	-	189
Children	-	-	-	-	-	181
Total						602

⁴⁸ Nat. Hist. of Aleppo.

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II.

Inguinal and Axillary Buboes variously conjoined.

Inguinal and axillary buboes on the right side	-	-	27
Inguinal and axillary buboes on the left side	-	-	26
Inguinal buboes on the right side, axillary on the left side			17
Inguinal buboes on the left side, axillary on the right	-	-	9
Inguinal buboes right side, axillary on both sides			2
Inguinal buboes on both sides, axillary indifferently on the right and left	-	-	22
Inguinal and axillary buboes, conjoined with parotids or spurious buboes	-	-	38
Inguinal and axillary buboes on both sides	-	-	2
Total			143

I have already had occasion to remark, that the complication of eruptions most frequently met with in the Plague, was carbuncles with buboes; four hundred out of six hundred complicated cases were attended with carbuncles.

Inguinal and axillary buboes stand next in order, and it appears from the above table, they were most commonly protruded on the same side, indifferently whether right or left. Inguinal buboes in both groins were attended with single axillary buboes, two instances only in twenty-four occurring to the contrary. A single inguinal or axillary bubo, with one or two carbuncles, was of all others the most common conjunction. In more complicated cases two or three buboes and three or four carbuncles, were met with in the same subject. Other cases sometimes presented wherein both groins, axillæ and parotids were affected, and to these buboes were joined seven or eight carbuncles on different parts, but instances of this kind were proportionally rare. It is remarkable that a considerable share of these cases, distinguished by so extraordinary a concurrence of eruptions, was met with among children under ten years of age.

The Method of Cure pursued in the Plague.

IT has been already remarked, that certain popular prejudices prevalent in Turkey, lay restraints on the medical practice in the plague, and sometimes leave little more to the physician than to remain a passive spectator of the natural progress of the disease. In describing therefore the method of cure, I shall confine myself strictly to what actually was done, which alone is matter of experience: as to what, if at full liberty, I might wish to have done, inasmuch as it was not supported by experience, it shall be reserved, together with other matters of opinion, for another place.

A very large proportion of the infected were bled at the arm; I believe nearly two-thirds: some were only cupped, but the number of the former was by much the most considerable. The bleeding was in general performed the first night, or some time on the second day; sometimes not till the third. Where the bleeding was repeated, it was usually on the third day, sometimes so late as the fifth, and even the sixth. I met with instances wherein the patient was three or four times bled, the last bleeding being so late as the seventh day. Such late and repeated bleedings were considered, however, as extraordinary; and as they almost never took place in the three first classes, several of the patients recovered.

What has been said chiefly respects the practice of the natives, who let blood in the hot stages, at any period where the febrile symptoms ran high, especially if that evacuation had been neglected at the beginning. But from the rapid progress of the disease, and the quick transition from the febrile to the low languid state, few were bled more than once, and that usually within the first forty hours.

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As the sudden loss of strength and small quick pulse were, in general, objections to bleeding, it of course had very rarely place in the sick of the first class; but in those of the other classes, somewhat more than one half were bled; the third class excepted, where, as it appears from the journals, of twenty-eight cases, bleeding had been omitted only in four.

Besides the low, sunk state of the sick, the appearance of eruptions was sometimes an objection to bleeding; but the influence of this objection was chiefly confined to the Christians and Jews, and among them was far from being general.

In my own practice, I usually advised one bleeding at the beginning, except in the very young, aged, or infirm; or where deterred by the state of the pulse, and sudden accession of alarming symptoms. The appearance of eruptions was never of itself considered as an objection to bleeding; because at that early period it was impossible to judge whether the buboes would advance or not, and in a great number of instances I never observed them recede upon bleeding.

As the major part of the sick did not apply for advice sooner than the 2d or 3d day, they often had been bled before I saw them; in which case I was regulated in respect to a second bleeding, by the state of the pulse in the remissions, and the presence or absence of vomiting or diarrhœa. Where bleeding had been omitted at the beginning, I sometimes ventured, in youth, or in plethoric habits, to order some blood to be taken away; notwithstanding the depression of the pulse, and the concomitant vomiting and diarrhœa; but I was not encouraged by the success of this practice; for the pulse seldom rose under such circumstances, and I sometimes suspected it had done harm. What might have been the effect of a second bleeding, I cannot say, because it never was tried where vomiting or diarrhœa were concomitant symptoms. But in no case whatever, to the best of my recollection, did I order a bleeding later than the third day.

Bleeding

Bleeding on the first day, where not forbidden by indubious circumstances, was directed by way of precaution, in the uncertainty of the future course of the disease; on the subsequent days it was regulated by the state of the pulse and other symptoms. Its general limitation to the first three days, arose from observation of the usual course of the disease, which in dangerous cases, very rarely, after that period, presented indications for bleeding. In cases attended with little danger, the transient febrile exacerbations later than the third day, might have borne the loss of blood without much injury, but it was not requisite.*

In many cases of slight infection, (Class V.) where the febrile symptoms were moderate, or did not supervene till some days after the eruptions, bleeding was wholly omitted: more from a notion of its being unnecessary, than an apprehension of its doing harm; for in many instances where the sick, in compliance with custom, had been bled, the future course of the disease seemed no way affected by the evacuation.

The quantity of blood taken away at once seldom exceeded eight or ten ounces. The native practitioners are apt to be too sparing; but where I had reason to believe the patient had lost ten ounces at first, I was cautious in ordering a second bleeding, though the symptoms in the exacerbation on the second day might seem to require it; because the pulse often sunk on the third, or a sweat broke out: but if the pulse kept up in the remission, and symptoms in the subsequent exacerbation rendered it requisite, a second bleeding was then directed. I seldom or never ordered cupping, but it was in practice among the natives: sometimes from dread of the lancet, and sometimes from apprehension of admitting a common bleeder into the house. Children were scarified in the legs, as usually practised in the small-pox.

* This is not merely conjecture, the natives frequently bleed in such circumstances, without ill consequence.

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I had not many opportunities of examining the blood drawn from the vein. In general it varied little from healthy blood; the crassamentum was sometimes of a darkish colour, but never fizy or resolved.

In determining the effects of blood letting in the plague, it becomes indispensably necessary to attend strictly to the circumstances under which the evacuation was made. General and indiscriminate recommendation or interdiction, are, besides being inconclusive, founded for the most part more on hypothesis than experience.² That in various circumstances of the true plague, blood may be taken away, if not with advantage, at least without injury to the sick, is solidly confirmed not only by the established practice in the Levant, but by the respectable testimony of physicians practising in Europe. The periods of its admission have indeed been variously limited, some confining it to the first twelve hours, others extending it to twenty-four:³ and it sometimes, in nearly the same pestilential season, has been found of service in one place, by the same physicians who had found it always detrimental in another.⁴

The safety of bleeding admitted, the propriety of it must depend on circumstances clearly defined, and is not to be limited by hours or days. The progress of the disease variously rapid, renders some on the first day, subjects less fit for bleeding than others on the third; and sometimes, though safe, it was wholly unne-

² " Illud enim observavimus, si peste correptis vena secaretur, illos ad unum omnes certo et cito obeisse." Diemerbroeck, lib. iii. p. 154.

" There possibly may be circumstances in malignant and pestilential fevers, which may justify phlebotomy; but in a genuine pestilence, it is not to be meddled with. " There is but one I can remember, who survived it in the late sickness." Hodges, Loimologia, p. 157.

³ Forestus, lib. vii. Obs. 17. Senertus de Febris, lib. iv. cap. 6th.

⁴ Traité de la Peste, p. 364. Septalius in Animadvers. N°. 6. lib. v.

cessary. Hence, in the first class, where the sick were often reduced suddenly to a state nearly the same with that of the advanced stages in other classes, bleeding, as in those desperate circumstances, was seldom practised; or where injudiciously ventured, commonly did harm: and in the fifth, it might always, or for the most part, have been safely dispensed with.

In the second, third, fourth, and sixth classes, but especially the two first, the low, sunk stage is inseparable from the disease, varying in its degree and the period of its accession; but though, perhaps, its approach may be hastened by evacuations, artificial or symptomatical, it cannot be prevented by any known method whatever, after the disease is once formed.

The main objections to bleeding, as well as the restrictions which that and other evacuations are laid under, arise from the apprehension of weakening those natural powers of the constitution, which might successfully be exerted in subduing the disease. In this light, bleeding is often accused of a pernicious tendency, and of hastening the low and most dangerous stage of the plague.

How far this accusation is well grounded, will be best determined by an impartial comparison of cases wherein bleeding had been practised, with others, similar in their access, where it was omitted: as also, by attention to the progress of the disease, where bleeding had been more than once repeated. But in the selection of cases, care must be taken that the concurrence of symptoms at the beginning be nearly the same: a circumstance which renders it difficult to find a sufficient number of cases for comparison; for the low stage has often come on before application for advice, and a distinct account of the access, or first stage, is not always to be collected from the assistants.

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I shall in a few words give the result of my own experience on this point. Upon finding the pulse sink so suddenly after bleeding,⁵ I was at first inclined to ascribe it to that evacuation, and to suspect that in less plethoric habits, bleeding must prove still more prejudicial; but I afterwards found the low state inseparable from certain forms of the disease, and often could observe no material difference in its progress, in cases where bleeding had or had not been admitted.⁶

Where the sick under my own inspection, were bled more than once, I did not observe the low state thereby hurried on; but it should be remarked, that the quantity of blood taken away was moderate, and that indications were always strong where bleeding was repeated. The journals afford a remarkable instance of a woman, who had been bled the second day, and on the third was again bled at both arms at once.⁷

⁵ Appendix Case III. XVII.

⁶ In case II, I found the patient in the low stage, on the third day, though he had not been bled at all. Cases VIII, IX, and X. The sick had not been bled, but on the third or fourth day were found in the low state. Case XVI. The pulse on the fourth day was found low and fluttering, though the girl had not been bled.

In the woman, Case IV. who had been bled the third day, the pulse remained moderately full on the sixth; whereas, that of the girl (Case IV) who had not been bled, was low and sunk. See Cases LXXIII. LXXIV.

Case XII. A small bleeding on the third did not sink the pulse. The patient, Case XXVI. was twice bled the second and third days, without hastening the low stage.

In Cases XXI and LXXVII. a large bleeding at the beginning, and cupping on the fourth, did not sink the patients, though in the former case he was rendered low by one or two loose stools. But in Case CIII (attended with looseness) intemperate bleeding on the third day, had a visible effect in sinking the patient; and indeed she was bled in both arms at once. In Case XV. the patient was bled the second, and the bowels cleared by a glyster, but the low state came on no sooner than the fourth.

⁷ Case CIII.

Where

Where bleeding at the beginning had taken place in weakly habits, which seemed ill suited to evacuations, its effects were various, and sometimes the reverse of what was expected; the pulse kept up where blood had been drawn, and flagged where bleeding had been omitted. In some cases the course of the symptoms appeared to be little affected by it; but collateral circumstances must here always be attended to. In old subjects, or where a stupor attended the first day, bleeding might justly be suspected of doing harm⁸.

In regard to buboes, considered as an objection to bleeding, it may be remarked, that in a very large proportion of the infected, they made their appearance previously to the bleeding, or were protruded soon after it; and so far as I could perceive, neither their eruption nor progress seemed to be influenced by that evacuation. Indeed, where the pain of the tumor was excessive, early in the disease, I held bleeding necessary to moderate that and other inflammatory symptoms; for till the fever declined, the buboes never advanced kindly to maturation. I met with a few instances wherein, after copious bleeding, the incipient bubo seemed to recede⁹; but in the case referred to, it reappeared on the fourth day, after a hemorrhage from the nose; and in the others, as I did not examine the parts myself, I was in some doubt as to the accuracy of my information.

Whether there be a period after the contraction of the pestilential virus, when it may effectually be expelled, and the formation of the impending disease prevented by the timely use of emetics, as has been successfully experienced in other contagious disorders, is a point concerning which I can offer nothing from my own observation; but as the fact, with respect to malignant fevers, is supported by most respectable authority¹⁰, it becomes

⁸ Case LXIX. CII.

⁹ Appendix, Case LXV.

¹⁰ Lind's Dissertation on Fevers, p. 218. Pringle's Diseases of the Army, p. 295, 314. Huxham's Essay on Fevers, p. 109.

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a matter of important investigation to enquire how far, and to ascertain the circumstances under which a similar practice might rationally be attempted in the plague. I shall have an opportunity hereafter to make a few remarks on this subject.

The native practitioners never administer emetics in the plague; and I never had an opportunity of giving them till after the patient had been bled: indeed the general prejudice against them, left me few opportunities of giving them at all. In case of symptomatic vomiting, moderate draughts of warm water, chamomel or carduus tea, were ordered to encourage it. Where there was only a nausea, or ineffectual retching, ipecacuanha was given; and sometimes simple oxymel, (*skinjabeel*) a medicine more familiar to the natives. In a few cases where a small quantity of emetic tartar was added to the ipecacuanha, it was always found to operate too roughly.

When nausea or retching were not symptoms, vomiting was never provoked by medicine, except where foulness of the stomach was indicated by the appearance of the tongue, or taste in the mouth; which very seldom was the case. Emetics therefore were chiefly given with a view to the stomach and intestinal tube, and to promote excretion by the skin. Their effects with respect to the latter were the most sensible; for though they generally brought off bile, it seemed to be chiefly what was emulged during the operation, and they neither appeared to relieve the stomach, or to prevent a diarrhoea²¹. This however is not asserted from wide experience of them.

Where the retching did not cease after the vomit and an anodyne, it became a dangerous symptom, in the same manner as the continuance of symptomatic vomiting. In this case a scruple of alkaline salt with a spoonful of lemon juice in the act of effervescence was found for the most part more efficacious than in

²¹ Appendix, Case III. XVII. XXI. XXIII. LXXVII.

ordinary malignant fevers¹². Where it failed in stopping the vomiting, opiates and external applications were tried in vain¹³. CHAP.
V.
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The sick sometimes vomited worms¹⁴; but this occurred more rarely than in the ordinary putrid fevers of that country.

A diarrhœa was universally reputed so dangerous a symptom, that the popular dread of provoking it by medicine proved an unfurmountable obstacle to purges at the beginning; even those of the most lenient kind as well as glysters were proscribed, and it was with difficulty the natives could be persuaded to admit a suppository sooner than the end of the week, though, at all other times, a favorite remedy with them. It was therefore seldom, however proper I might conceive it to cleanse the first passages, that I had it in my power to effect it by laxatives at the beginning, and was often obliged to give way reluctantly to prejudices, in cases where evacuations appeared to be highly necessary¹⁵.

The neglect of purging at the beginning, was not followed by the consequences which might rationally have been expected, and I never saw any acute distemper where costiveness was attended with so little inconveniency¹⁶. Nevertheless I think it rational,

¹² Appendix, Case III. XLVI. XLVII. LXXXIII. CVI.

¹³ Case LXVIII. XCVIII.

¹⁴ Case CXV.

¹⁵ Case XLI.

¹⁶ The costiveness so common and remarkable in the plague often surprized me, though I knew the same circumstances had often been remarked in other parts of the world. Diemerbroeck is particularly explicit. "Purgantia & vomitoria maxima fugienda esse preter rationem in hac peste etiam docuit usus. Quapropter nos ante diem septimam, nullis ne quidam cacochymis aut cathartica aut lenientia aut clysteres, aut aliud quippiam, quod alvum citare posset, dedimus; & quamvis totis septem diebus alvum non deponerunt ægri, nihil tamen movere ausuimus: paucissimis autem qui id tentaverant feliciter cessit, & fere in omnibus, diarrhœa subsecuta fuit incurabilis & brevi occidens." De Peste, p. 158.

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rational, by gentle means, to clear the bowels at the beginning from any colluvies that might happen to be lodged there; for though that did not constantly prevent looseness, or other symptoms produced by matter pent up, and rendered more putrescent by the fever, yet, I think, it sometimes had that effect; and passage of the bowels often appeared to relieve the head, both in the augment and decline of the disease ¹⁷.

But wherever purgatives are given, the most lenient are eligible; such as cassia, salts, manna, or rhubarb with cream of tartar. The more active were very apt to produce superpurgation; and even senna in full dose was seldom given till towards the termination of the disorder. I am aware that a supervening diarrhœa merely symptomatic, was often ascribed unjustly to the laxative given some days before; but at the same time I was convinced from the effect of the lenient purges, that the bowels were generally in a very irritable state, and constantly observed, in a few cases where more active stimuli were conjoined, that they proved prejudicial.

I generally advised purging twice or thrice at the end of the disease, more especially in cases where the buboes had dispersed; but the advice in many instances was not followed; without however producing the ill consequences predicted of neglect ¹⁸. An anodyne was always given after the purge.

A spontaneous looseness appeared in a few instances to be of service ¹⁹, at least not detrimental: but in general was found to

“Sunt purgantia quemadmodum in reliquis malignis, ita et in peste summe periculosa.—Experientia sufficientur demonstravit omni tempore, non modo fortiora purgantia sed & mitiora lenitiva tam in principio quam flatu ac decremento fuisse pessima. Imo & clysmata plerumque in majus periculum conjecerunt.” Rivinus de Peste, p 893. Here matters seem to be carried to an excess: in like manner as the opinions of Diemerbroeck and Hodges in regard to bleeding.

¹⁷ Case LI. LVII. LXV. LXXX.

¹⁸ Case XC. XCIX. CI.

¹⁹ Case XCIX.

be a dangerous symptom. Where it attended from the first, and continued through the second day, an attempt was then made to check it by diascordium or other opiates, and, when flighter, by the white decoction. The stools were seldom accompanied by gripes, and checking it without previous purging, was productive of none of the consequences usually observed in ordinary fluxes.

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I was at first apprehensive that the opium in the diascordium might perhaps increase the stupor or comatous disposition, when it was present, or favour its approach, when not yet come on. But finding this not to be the case, I used opiates in 1762, much more freely than I had done in the former years, and, in general, remarked, where they succeeded in stopping the looseness early in the disease, that the patient became more alert and sensibly better. In the more advanced stages, the astringents and opiates rarely checked or suppressed the looseness, and as coma, where opiates had not been given, was often also a concomitant symptom at that period, the increase of it, where given, was not always, though it sometimes might be, owing to the narcotic remedies.

As I had no opportunity of exhibiting emetics in the plague, with a view of preventing the formation of the distemper, so I had very few of administering sudorifics early enough to encourage hopes of that kind: and never of pushing the sweat to the length prescribed by those practitioners whose intention it was by such means effectually at once to expel the pestilential virus.

In a few cases I tried the spiritus mindereri in pretty large doses, the first day, immediately after bleeding, and before the eruptions had appeared. In most of them it failed in producing a sweat, and in the others, though a sweat followed, no remarkable variation was observed in the course of the symptoms. This spirit was preferred to the warmer sudorifics, because where it

4 X failed

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failed in its operation by the skin, it passed easily off by urine, and did not heat the body in the manner they always were observed to do: a circumstance the more desirable, as at so early a period it was impossible to foresee the length or degree of force of the impending inflammatory stage. But my experiments here were too few to justify conclusions; besides which, I suspect that proper dilution was neglected. Where a sweat was raised, it never was kept up nearly the time directed by Forestus and Diemerbroeck. The impatience of the sick and obsequiousness of attendants, who seldom could be persuaded to comply with medical orders, which bore the appearance of severity, rendered the risk of checking artificial sweats, not less to those in opulent circumstances, than to the indigent, who had few conveniences, and few to nurse them: and as all who have recommended the sweating method concur in asserting the danger of the sweat being improperly checked, so artificial sweats appear to be much more readily affected by exposure to cold than sweats rising spontaneously; the latter having been often observed at the critical periods of the disease to flow freely, in spite of imprudence on the part of the sick, and negligence of the nurses in point of covering.

But besides the difficulty of securing compliance with directions, and the risk of disobedience, other obstacles presented to the frequent trial of the sweating method with probability of success. Among these were the early appearance of buboes in a large proportion of the sick; the inability of the stomach to retain internal remedies, and the delay of application for assistance in due time.

Where the trial was made, the sudorifics usually employed were the spiritus mindereri, the saline draughts, and cold water. Though these for the most part proved ineffectual, others possessed of higher powers might perhaps have had better success; and I have often, on reflection, regretted the not having tried the

antimonial medicines in nauseating doses, combined with opium. But the antimonials in that form had not, when I left Britain, been so generally, as they now are, received into practice, and the small proportion of emetic tartar occasionally joined with the ipecacuanha, commonly operated so roughly, as deterred me from venturing sudorifics, of which I had little experience, and which if once suspected of moving the stomach or bowels, would effectually have destroyed all future confidence in my prescriptions.

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The opportunities of a fair trial presenting so seldom, together with the inefficacy of the remedies, and ill success where the experiment had been made, induced me, after some time, to relinquish the partial prosecution of a method that promised success only when carried to the full extent, which those had done who recommended it from their own experience. But this, in my situation, standing exposed to many impediments, and having never remarked nature herself at so early a period attempt the expulsion of the disease by sweat; I judged it safer as well as more expedient to turn my attention to the spontaneous course of the disease, and to regulate the sudorifics on the plan of those practitioners who encourage a determination to the skin, by remedies either so little stimulant or in such small doses, as run no risk of augmenting the inflammatory diathesis.

The medicines used for this purpose were saline draughts, spiritus mindereri, elixir paregoricum, compound contrayerva powder of the Edinburgh dispensary, nitre, serpentary and bark; together with dilution as copious as the condition of the stomach would admit. The contrayerva powder was the officinal composition most generally used, and exhibited either in some of the simple distilled waters, in repute in that country²¹, or in mixture with the saline draught or spiritus mindereri.

²¹ Aqua nymphœæ, scorzonæræ, cardui benedicti, falicis Ægyptiacæ.

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Sometimes in the advanced stages, the serpentary and contrayerva roots were given separately in large doses, in substance or in decoction. The former was found too hot and stimulant, as well as disagreeable to the palate; the small stock of the latter was an objection to its consumption in decoction; but in the few instances wherein they were tried, they were not observed to operate more powerfully than in the ordinary officinal composition²².

As a diaphoretic or antispasmodic, camphor and valerian were sometimes given, but I had little experience of the former, on account of a prejudice prevalent among the Mohammedans, that the internal use of it, owing to its cold quality, is apt to produce impotence.

Nitre was frequently joined with the contrayerva powder in the inflammatory stage; but in 1762, it seemed so sensibly to affect the bowels, that it was rarely used after the beginning of the summer of that year. The alkali and vegetable acid neutralized sometimes also produced loose stools, but where they failed in determining to the skin, they were more apt than the nitre to pass off by the kidneys, and on that account were preferred.

The bark in substance was tried only in small doses, or employed only as a substitute in composition for the contrayerva root; in decoction, it was seldom given; but very often in tincture, in the decline of the disease.

I never used the theriac, and very rarely the volatile alkaline salts; the apparent heating quality of both was a strong objection with the natives; and, where I judged opiates proper, I preferred them

²² The contrayerva root being nearly expended, I was for sometime under the necessity of substituting serpentary in its place, but the medicine, on account of the increased bitterness was taken with more reluctance.

²³ Case XXXII.

simple, in more determinate doses, than in the complex form of the theriac. The diascordium was used principally as an astringent in cases attended with looseness, and was prepared with and without opium.

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The bezoar, in small doses of four or five grains, was more universally administered by the natives than any other remedy whatever, and always usurped the merit of the cure where the patient recovered. Though I had no confidence in that medicine myself, I always submitted, when it was proposed, from a notion of its doing no harm. I never could observe any sensible effect from it; but it was taken with much prejudice in its favour by the natives of all ranks, and, being a costly article, was dispensed gratis by the rich. In some cases a vomiting immediately followed the exhibition of it, but this did not happen so constantly as not to leave it doubtful whether the vomiting was not merely symptomatical; and it might sometimes be owing to the indelicate mode of exhibiting the drug in the patient's own urine²⁴.

The mild sudorifics exhibited, in the manner above described, every five or six hours, very often produced no perceptible increase of perspiration²⁵; at other times a sweat was observed to follow²⁶; but as natural sweats were at certain periods incident to the disease, the sweat was not rashly to be considered as always produced by the medicine that had been given. Where the natural disposition happened to coincide with the operation of the sudorifics, they no doubt might assist; where that predisposition was absent, they were not of power sufficient to raise a diaphoresis²⁷. I think this will appear evidently from the sub-

²⁴ Appendix, Case LV. LVI. LXX. LXXIII.

²⁵ Case XXVII. XXX. XXXVI. XLVIII. LVI. LXXVIII. LXXXVI.

²⁶ Case XII. XXXII. XLI. LII. LVII. LXV. LXXI. LXXIII. LXXVI. LXXVII. LXXXII. LXXXVIII. XC. XCVII. CI.

²⁷ Case XXXVII. XXXVIII. CI.

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joined journals; for in many instances where remedies were totally neglected, or taken in very inconsiderable doses, the course of the disease, in respect to sweats, varied very little from that in cases where they had been regularly administered.

It is difficult in this point, as in others connected with so variable a disease as the plague; to collect a competent number of cases exactly analogous for the forming a comparative estimate. It appeared to me, as far as I could observe, that where there was no predisposition naturally to a diaphoresis, the sudorifics employed seldom or ever had effect: they did no harm; but a certain concurrence was indispensably requisite to render them effectual. Hence, as they did not appear to be of service in the first three classes, and were seldom required in the fifth, their utility seemed to be confined to those forms of the disease arranged under the fourth and sixth classes; and it ought constantly to be held in remembrance, that a number of the infected comprehended in these two classes, recovered without any assistance from medicine.

I shall hereafter have a more proper opportunity of assigning my reasons for thinking that it has been chiefly, if not only in these two classes, that medical art hitherto can be allowed to have just pretensions to much success. In regard to the first three classes, the various and opposite methods of treating the disease, will on an attentive perusal of the pestilential cases recorded in books, appear to have proved almost constantly unfortunate. In these therefore a field remains open for concerting new methods of cure, founded on the modern improvements in physic, and a careful review of ancient errors. But in the application of past experience to this purpose, it will be absolutely requisite to keep these three classes strictly separate from the others.

From

From what has been remarked above, in respect to the little difference sometimes observable in the progress of the disease, where sudorifics were or were not given, I wish not to be understood as holding an opinion of their inutility in cases belonging to the fourth and sixth classes, in which they were so frequently administered. Though they often were productive of no sensible sweat, I presume not to assert they had no effect whatever; though critical sweats, or a kindly moisture on the skin, were certainly incident to the disease independent of sudorific remedies, yet where these had been given, I think they may rationally be supposed to have somewhat assisted the efforts of nature; and indeed where they were punctually taken, the moisture on the skin appeared to me, to be more constant, than where they were irregularly taken or wholly neglected.

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I do not think that a scruple or half a dram of contrayerva powder, given once or twice a day, can be supposed to have much efficacy, and on that account consider a number of the subjoined cases as exhibiting the course or progress of the disease, unaided and undisturbed. But even in these diminutive doses, remedies were in another respect of some service; for as long as they were continued, the sick, cherishing hope, were more easily kept in subjection; they were better attended, and the assistants were restrained from indulging them improperly, which was infallibly the case whenever the patient was considered as left by the physician, either in a desperate or convalescent state.

I had not, at that time, acquired sufficient influence with the natives, to extend the practice of blistering, which had been introduced by my brother;²⁸ it was therefore seldom that I had an opportunity of availing myself of what I considered as a valuable remedy. But sinapisms were readily admitted, and were often applied with benefit, sometimes with remarkable success.²⁹ They

²⁸ See Natural History.

²⁹ Case LXXI. XCVIII. C. XXIV. XXXIV. XLVI. LXV.

were

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were usually applied to the soles of the feet, in the evening, or before the expected exacerbation, not only in the advanced stage, but, where the head or tongue were much disordered, in the earlier stages also. They were removed upon the patient complaining much of them, and were occasionally repeated. Care was taken to wash the parts well with tepid water when the cataplasms were removed, and in case of extraordinary tenderness or inflammation, a poultice of bread and milk was applied in the intervals. In this manner, without any remarkable discharge, a stimulus was easily moderated, and longer continued than that of the cantharides; but there were circumstances, no doubt, in which blisters might have proved more effectual.

Thirst and other febrile symptoms were palliated by the usual means. Anxiety, pain at the heart, debility, and hemorrhage remain to be considered: for as to the dulness of hearing, and impediment of speech,³⁰ which sometimes remained for several months after the patient was in other respects well, they went off in time without medical assistance.

Anxiety, pain at the heart, and sinking or debility, were almost constant concomitants, in some degree, and urgently required some attention. The remedies found most effectually palliative in these symptoms, were simple cordials composed in the inflammatory stage, of the grateful distilled waters and dulcified spirit of nitre.³¹ These were given in the intermediate hours, without interfering with other remedies, and proved highly agreeable; the sick eagerly asking for them, and declaring they felt the weight at the heart, as if it were, lightened immediately upon swallowing two or three spoonfuls. In the low stage, confection of al-kermes, a cordial in popular esteem, was added, and sometimes spirits of lavender, tinctures of saffron and valerian, and volatile

³⁰ See before Chap. II.

³¹ ℞ Aq. Nymph. ℥iv. Meliss. ℥iii sp. Nitr. d. ℥ii Syr. Aurant. ℥℥. M.

aromatic

aromatic spirit, instead of the spirit of nitre.³² These also were grateful to the sick, but the malady being now confirmed, and the concurrence of other symptoms more alarming, the benefit derived from them was less perceptible. Remedies in any considerable degree nauseous, were given separately from the cordials, and at stated hours.

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The ordinary drinks were usually acidulated either with lemons, pomgranates, the juice of grapes, or the mineral acids; except where the patient had an aversion to sour, or where they disagreed with the stomach. To the poor, who could not at all times procure the ripe fruits, the spirit of vitriol was sometimes dispensed in the form mentioned by my brother,³³ and sometimes mixed with conserve of roses, to be dissolved in water or ptisan of galls roots.³⁴ The symptoms for which cordials were ordered, were sometimes alleviated by the acidulated drinks alone: but an obstacle to the free use of them, often arose from a vulgar notion of their being very apt to effect the tongue; and as faltering in speech was no unusual symptom of the disease, it became prudentially requisite to secure them from blame by a well timed prediction.

To what has been said before on the subject of hemorrhage, it is unnecessary to add any thing here, more than relates to the medical treatment. Hemorrhages from the uterus were generally the concomitants of abortion, and seldom or never observed in women not pregnant. But though the cases in which they occurred, for the most part, terminated fatally, the loss of blood, in the few

³² ℞ Aq. Salicis Ægypt. ℥iv. Meliss. ℥ii Flor. Aurant. ℥i
Confect. Alkerm. ʒi℥ Sp. Lav. comp. Vol arom. aa ʒi
Syrup. e succ. Aurant. ʒ℥. M.

³³ Spirit of Vitriol and syrup of violets to be added to plain water.

³⁴ This form was intended merely for the convenience of the poor, who were not always supplied with phials, and could thus more safely transport the spirit in a coffee cup.

BOOK instances I met with, was so inconsiderable, that I found no rea-
II. son for attempting to restrain it.

In some instances of hemorrhage from the nose, I unsuccessfully tried the pulvis stipticus of the Edinburgh Dispensary. The mineral acids, tinctura rosarum, and application of cold to the neck, had little or no effect. The symptom in general was unfavourable; where it proved otherwise, and even where the issue was fatal, the hemorrhage often ceased spontaneously; but it was dangerous only in concurrence with other bad symptoms; for the quantity of blood lost was very often small, and a few instances were met with of recovery where the hemorrhage had been uncommonly copious.³⁵

I shall now, by way of recapitulation, present an abstract sketch of the method of cure which I usually pursued in the plague.

Bleeding was recommended as early as possible, but seldom repeated, where a quantity deemed sufficient had been taken at first; except where particular circumstances rendered it clearly requisite.

Where vomiting was a concomitant symptom at the beginning, it was encouraged by draughts of warm water or chamomel tea, till the stomach appeared to be cleared of bile, or any other coluvies. Where nausea only attended, the same means were employed, assisted by a feather; but where these proved ineffectual, especially if, at the same time, there was a bitter or disagreeable taste in the mouth, ten or fifteen grains of ipecacuanha were given at once, which generally operated sufficiently upwards, and produced also one or two stools. The remission was the time preferred for giving the emetic, and an opiate was administered after the operation was over.

³⁵ Case LXXVI. XCI.

Where neither nausea, nor ill taste in the mouth were present, the stomach was left undisturbed; and though, in this stage, it might, perhaps, have been proper to cleanse the intestinal canal, a laxative, on account of impediments before mentioned, was seldom given.

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Where symptomatic vomiting continued too long, and by its frequency fatigued the patient, the saline draught in effervescence, and sometimes opiates and external applications were employed.

As soon as the stomach was settled, mild sudorifics were administered in small doses, repeated every fifth or sixth hour. Nitre was joined with the compound powder of contrayerva, at the beginning, but when it appeared to occasion loose stools, was left off. The spiritus mindereri and saline mixture were also given as sudorifics.

Where a diarrhoea attended from the first, or supervened afterwards, dilution was first ordered, and then the white decoction; it being very seldom the sick could be prevailed on, or rather the assistants, to admit of rhubarb, or any other laxative: if it still persisted, as it never was observed to prove critical or of any service, attempts were made to check it by diascordium and opiates.

In the advance of the distemper, the sudorifics were given more or less frequently, according to circumstances; a mode preferred to the augmenting the dose, which commonly gave disgust, and occasioned the remedies to be rejected all together. The same consequences attended the heightening the power of the sudorifics, by the addition of serpentary, which sometimes was attempted in the low stage. The general scope in the direction of these medicines was to regulate their operation so as to coincide with the periodical determination to the skin, observed in the natural course of the disease.

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As the operation of fudorifics of such low powers required every kind of assistance, dilution was particularly attended to; and where thirst was absent, the sick were encouraged to drink frequently of whatever drinks happened to be most agreeable to them, and either warm or cold at their option. Access of cool air to the chamber was constantly permitted, and where the chamber was not airy, the bed was removed to the open divan, or the house top: but towards the height of the exacerbations, upon the first appearance of moisture on the skin, the sick were kept moderately covered up from the chin downward. The slight sweats encouraged in this manner, though not critical, proved so far of service as they helped to induce calmer remissions, which were the proper opportunities for administering nourishment.

The diet was the same as in other acute distempers. Of the animal kind nothing stronger than chicken broth was admitted; the rest consisted of the farinaceous and leguminous vegetables, and some of the ripe fruits. The pomegranate of a middle sort, between the sweet and sour, afforded a very grateful refreshment, but the juice only was swallowed. The water melon was still more easily procured, and, where thirst was excessive, was a safe indulgence. Sherbets of lemon, visna cherry, or mulberries, with biscuit or bread, were grateful to the sick, when the stomach loathed other nourishment. It was certainly necessary, to a certain degree, to support nature by proper food, but to force it upon a nauseating stomach seems to have been irrationally recommended; and where attempted, which the over care of the nurses often did, usually excited vomiting. I sometimes wished to give wine, but a religious bar lay in the way of the Mohammedans, and a prejudice against it, in all fevers whatever, rendered it equally inadmissible among the Christians and Jews.

A delirium or coma on the first night, were left to take their course till the effect of the bleeding or other evacuations should be known; but if they still continued or increased the second or third night, as well as in any subsequent period, especially where the

pulse was low, sinapisms, or cataplasms composed of garlic, dough, and vinegar were applied to the soles. Bathing the legs was also recommended for relieving the head-ach and delirium, but was an operation attended with too much trouble to become a general practice.

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For oppression at the præcordia, mild cordials, accidulated drinks, and cool air were found of service.

After the height and through the decline of the disease, the bark in substance, or Huxham's tincture, were substituted for the ordinary sudorifics.

As soon in the decline of the disease as my influence could prevail for their admission, a purging potion was directed, and repeated twice or thrice, especially in cases where the buboes had dispersed.

Where irregularities in diet were committed in the convalescent state, the usual consequence was a diarrhœa. This required the ordinary treatment; but was not, as in the former stages, to be checked without previous purgation.

It is a prevalent notion in the Levant, not confined to Aleppo, that irregularities of diet in the plague before the expiration of forty days, are very apt to produce relapses, characterised by new eruptions³⁶. So far as my own observation went, I am inclined to doubt this; at least it does not hold true universally. Relapses, so characterised, are very rare, and bear no proportion to the frequent irregularities committed by the convalescents from the plague. The succession of eruptions, and their protrusion

³⁶ "A Peste convalescere incipiens, si ante quadragesimum gravem aliquem in diata errorem fecerit, novo erumpente bubone moritur. Timoni, Phil. Transactions, Vol. XXXI.

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BOOK II. very late in the disease, have already been mentioned in another place³⁷, and in the following chapter on reinfection, an opportunity will offer of entering upon the subject more at large.

The CHIRURGICAL TREATMENT OF THE ERUPTIONS was extremely simple. A poultice of bread and milk was applied at first to the bubo, and continued till the full maturation of the tumor; but as the impatience of the sick disposed them strongly to change of remedies, the poultice was sometimes varied, by the addition of saffron, and the meals of linseed and fœnugreec, in order to prevent recourse being had to less proper applications. The natives employed a variety of cataplasms and plasters. A mixture of flour, bran, yolk of egg and oil, kneaded together, was common; as also a roasted onion excavated, and smeared with oil. I sometimes ordered, for form sake, more compound cataplasms of the emolient herbs, althea roots, the meals, &c. but found nothing answer better than the simple poultice of bread and milk.

This is to be understood of the buboes when protuberant, and very painful, attended with serious symptoms which confined the patient to bed; for sometimes, in the fifth class especially, the trouble of keeping the cataplasms on the part, made many prefer a plaster, with which they could walk about with less inconvenience. For this purpose a large quantity of the *emplastrum gummosum*, *Phar. Edin.* was prepared with olive oil, and an increased proportion of wax to give it a firmer consistence; but it being necessary, now and then, to make a change, a portion of the plaster was tinged with dragon's blood. The plasters as well as internal remedies, being dispensed gratis, proved the means of inviting a great concourse of patients, of whom, as before remarked, many had occasion for little more than external applications.

³⁷ Chap. IV.

In more formidable cases, the plasters, when applied early, occasioned much pain, and seemed by no means so proper as the cataplasms; but in the second week, when the inflammatory symptoms had abated or disappeared, they answered extremely well, and hastened the external inflammation of the skin. In many cases they were continued till the abscess broke; though, where the tumor was large, and much inflamed, it was always better to change them for a poultice, which lay easier on the part, and served to assuage pain³⁸.

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³⁸ The mild method of treating the buboes was adopted by Forestus, Diemerbroeck, and Hodges. The topical applications employed by some of them were, according to the fashion of the times, unnecessarily compounded of a farrago of useless ingredients, which superstition or ancient custom had invested with imaginary powers; but all of them had at times recourse to simpler remedies, and such as were more easily procured and prepared. The College of Physicians at London, in 1665, made little alteration in this respect from their former orders, restrained probably by respect to their predecessors, and in compliance to popular prejudices in favour of antidotes. Forestus, lib. vi. v. i. p. 223. Diemerbroeck, p. 208. Hodges, p. 193. Directions by the College, Lond. 1665, xxiv, &c.

M. Bertrand, at Marseilles, declares expressly in favour of the mild treatment of the buboes, and condemns the pomp in prescription of external applications. "Le traitement extérieur ne doit pas être moins simple et moins benin que celui du dedans;" &c. *Traité de la Peste*, p. i. p. 379.

Messrs. Le Moine and Bailly's method of the treatment of buboes, agreed with that of M. Bertrand, they disapproved expressly of the extirpation of the glands.

"Pour les bubons, c'est un préjugé aussi faux que dangereux, de vouloir les extirper dès le commencement. Le Malade accablé par les accidens qui les accompagnent toujours, ou n'a pas la force de supporter les opérations, ou est mis en danger de perdre la vie, par les hémorrhages fréquentes qui surviennent, les quelles par la grande dissolution du sang sont très difficiles à arrêter.

"Il est donc plus à propos & l'expérience réitérée, que nous en avons nous le confirme de faire appliquer dessus des cataplasmes émolliens ordinaires & de les conduire à parfaite maturité, à moins que par les sueurs abondantes & considérables, le virus ne fût en partie dissipé; auquel cas nous faisons appliquer l'emplâtre d'Angelus sale pour les résoudre entièrement." *Traité de la Peste*, p. 365.

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The progress and maturation of the buboes depending so evidently on the state of the general disease, little was to be expected from topical remedies till such time as the disease should take a favourable turn; and indeed till that happened, they seldom were observed to make any steady progression. The process of suppuration seemed here, as in other instances, to be most secure under the conduct of nature herself, and to go on most prosperously where she was left free and undisturbed by the unreasonable irritation of topical remedies, or painful operations. This opinion, to my comprehension, is not only rational, but appears to be supported by the bad success of an opposite practice, deducible from the greater part of the pestilential histories which, with another view, have been produced in its recommendation³⁹.

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The Letter of Messrs. Moine and Bailly is dated the 10th of November, 1721. These gentlemen arrived at Canourgue the end of June, and immediately declared the distemper to be the plague, transmitting a certificate to that purpose to court. From Canourgue they went to Marvejols, the beginning of September, and on the 25th drew up a very distinct declaration, importing, that the distemper that had raged there for some time (and had been qualified with various names) was the real plague, and in all appearance more contagious than at Canourgue. See *Traité* p. 571. It is worth while to compare this *procès-verbal* with that said to be sent by M. Chicoyneaux from Marfeilles, the 18th of August, which I do not find in the *Traité*, but in the relation *Historique*, p. 114.

M. Rochevalier, a physician of Marvejols, agrees with the above gentlemen in the treatment of the buboes. “ Nous fumes obligés de renoncer à la pratique d’ouvrir les bubons avant leur maturité. - - - - Nous nous servions des suppuratives & mondificatives ordinaires. *Traité*, p. 601.

³⁹ On the head of the surgical treatment in the plague, it is observed by Sennertus, that some physicians were of opinion all violent methods and applications ought to be avoided, as productive of bad consequences by their irritation; that the method of nature, which in the work of maturation ever proceeds by a slow and gradual process, should be strictly attended to, and art attempt no more than to assist by the application of emolient and suppurative topicals. But others differing in opinion, conceived that there was danger, under this lenient treatment, of the morbid matter thrown upon the gland being re-absorbed into the habit, before suppuration could take place, and on that account thought it expedient to procure

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The dependance of suppuration on the state of the fever, and
general disease, was further evident from the various periods of
its completion, under an external treatment exactly the same. In
a few cases the bubo opened the tenth day, but for the most part
between

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an immediate outlet by means of blisters, incision, &c. In certain circumstances, that is in slight cases, he approves of the first method; but where the symptoms continue formidable after the protrusion of the bubo, he then approves of the other—
“ tunc frustra expectatur maturatio quæ in materia tam venenata ante mortem
“ ægri nulla futura est.” Senertus de Febribus, lib. iv. cap. 6.

The Montpellier physicians, and several of the French surgeons, in 1720, adopted a practice founded on this latter notion, the success of which will be best collected from the particular cases they have left on record.

Their method, according to M. Chicoyneau, in the alarming cases where there was not time to wait the slow operation of emollients, &c. was to apply caustic, so as to affect the whole surface of the tumor; then by cutting through the eschar to lay bare the glands, which if moveable, were extirpated by the knife, if it was practicable without danger of hemorrhage, otherwise they were to be a little scarified, and by the application of digestive ointments, &c. totally destroyed. The digestives consisted of the common ointments sharpened with oil of turpentine, spirituous tinctures of myrrh and aloes, sal ammoniac, and camphorated spirit. The parts were washed with lotions, vulnerary decoctions, &c.

An hemorrhage supervening these operations, they observed, proved always fatal however moderate, and for that reason had thought fit to reject the method of extirpating the buboes, which was practised at Marseilles before their arrival. *Traité de la Peste*, p. i. p. 237.

The *Relation Historique de la Peste de Marseille*, p. 379. denies, in express terms, that the practice those gentlemen pretend to have rejected, existed in Marseilles before their arrival. “ Ils l'avancent hardiment quoy que ce soit un fait public &
“ constant que cette méthode étoit inconnue en cette ville avant leur arrivée et qu'ils
“ sont les seuls médecins qui l'ont fait pratiquer; parcequ'ils étoient seuls dans cette
“ opinion que tout le venin se cantonnoit dans la glande & qu'en l'extirpant on
“ emportoit par là tout le venin.”

The Montpellier physicians had, by their supercilious behaviour, given just offence to those of Marseilles, and the author of the *Relation Historique*, partial perhaps to his fellow citizens, may have espoused their resentment. But he makes a pleasant enough reflection on their dissensions: “ Ne verrons nous jamais les medecins d'accord entre eux & serons-nous toujours obligés de confier notre vie à des
Z
“ gens

BOOK II. between the 15th and 22d, they sometimes lingered eight or ten days longer.

Several of the cases referred to in the notes, show likewise that the early incision of the buboes, extirpation of the glands, and scarifications, instead of hastening suppuration, seemed often to retard it beyond the usual period where buboes were treated mildly; and that no kindly suppuration took place before the general disease had taken a favourable turn.

In

“gens qui ne s'accordent le plus souvent que pour trouver les moins de la détruire?”
“P. 350.”

The testimony of M. Bertrand concurs with that of the Historical Narrative in respect to the extirpation of the glands. *Traité de la Peste*, p. i. p. 380.

The fairest way of rating the advantages of the practice being by a review of the cases which those, by whom it was adopted, have produced in its vindication; I shall make a few remarks on two or three of the cases given by M. Chicoyneau and his colleagues, referring simply to the others.

In Obs. 1. cl. ii. p. 254. As the bubo was advancing favourably under the emollient cataplasms, the application of caustics the third day, and extirpation of the glands, seem not only to have been wholly unnecessary, but may be suspected, by their irritation, of having exasperated, though not produced, the concomitant symptoms. It may further be remarked, that there was neither vomiting, diarrhæa, nor coma, and that in similar cases, where the buboes were left to themselves, they have often been observed to terminate prosperously.

Obs. 2. cl. iv. p. 287. M. Verny, in his reflections on this case, ascribes the patient's escape solely to the external treatment, and as what he says on the subject places M. Chicoyneau's opinion in a clear point of view, it merits consideration. P. 291.

Nothing had been done the first four or five days, the eruptions were advancing under the pure conduct of nature; no evacuations interposed to disturb her; cordials alone were given. Had the first bubo been left to itself as the second was, would it not, at a certain period, have come like that to suppuration? These gentlemen contend for the contrary. “J'oserai même avancer que ce n'est que par un effet, du pur hazard, je veux dire, d'une disposition particuliere, qu'on ne saurois prévoir ni déterminer, que nous avons vu des bubons & des charbons croître & suppurer & les malades échapper par les seules forces de la nature.”

Here

In general the buboes were left to open of themselves, for the lancet, comparatively, was used very seldom, and where it was admitted, the incision was commonly made with so sparing a hand that it proved of little service. Had proper persons been in the way to undertake the surgical part, I certainly should often have advised an artificial opening; because suppuration of the gland had often taken place when the external appearances of the tumor gave no signs of a speedy outlet to the matter. Perhaps to the absorption of part of this matter of the abscess might be owing the erratic febrile paroxysms or exacerbations which continued sometimes to harass the patient for some time after he was out of all danger, and for which the tincture of bark was commonly ordered: other symptoms might proceed from the same cause; and, at any rate, the discharge of the matter, when once formed, was undoubtedly to be desired.

But

Here the fact, that some left to nature recover is acknowledged, though afterwards restricted to cases of slight infection. But others, who never adopted their harsh method, assert the direct contrary, and must of course speak from wider practice. They do not restrict the suppuration of the buboes to slight cases, and I have myself seen many successful cases, wherein the symptoms were equally formidable as the present, or the other cases produced by M. Chicoyneau, &c. so far at least as I can judge from their narratives.

But, by their own accounts, did not their extirpation of the glands, &c. early in the disease, often prove unsuccessful? And where it happened otherwise, may it not be asked, did not their success depend on that peculiarity of *disposition*, or on chance, to which they so readily ascribe the success of other methods?

Obs. 4. cl. iv.. This was a very slight case, and there appears no ground for thinking that the bubo would not have done very well had it been left to itself.

The first observation of M. Couzier, p. 383, furnishes, in my opinion, a strong instance of the impropriety of the early extirpation of the glands, which appears upon a perusal of the case, to have been detrimental. The sixth day a bubo was opened and a part of the glands removed, but there being no serous discharge from the wound for two or three days, it was repeatedly scarified in order to hasten suppuration. In several of the other cases the operation seems to have been equally unnecessary.

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II.

But under the most thorough persuasion of this truth, I must at the same time repeat a former remark, that the numerous successful cases I had occasion to observe, wherein the buboes had been left to open of themselves, and were treated with superficial dressings, compared with instances proportionally rare, of harm resulting from the neglect of an incision, and the want of more skilful artists in the subsequent management of the ulcer, showed sufficiently the extensive powers of nature when left uninterrupted to herself; and led me strongly to suspect, that surgery, like physic, has frequently arrogated merit in the plague, where, in regard to the sick, her operations might have safely been dispensed with, and at the same time have saved the lives of many surgeons who have perished in the superfluous exercise of their art⁴⁰.

Where the natural opening of the abscesses was not sufficiently wide to give free discharge to the matter, and care was not taken

The observation of M. Geoffroy, p. 422, are twenty in number, and contain many curious chirurgical remarks, but none of them place early extirpation of the buboes in a favourable light. The third observation in particular deserves attention.

His cases are frequently defective in omitting the *dies morbi*; but in respect to the treatment of pestilential ulcers, the reader will find many useful observations. He has rather intermingled too much theory with his narratives, which is the more to be regretted, that he was a bold and active operator. He very often found the glands in a gangrenous state.

⁴⁰ “ Sans le secours de cette science (la medicine) & du grand art de la chirurgie, les pauvres malades auroient été abandonnés aux soins de la nature ; ce qu'on n'a pas vu, puisque nous les avons assistés, & que nous en avons guéris plusieurs qui auroient été privés de ce secours, si la cour remplie de zèle, n'avoit envoyé des chirurgiens pour traiter ces pauvres malades, puis qu'une partie de ceux qui étoient établis dans cette ville, avoit pris la fuite & n'a réparé qu'à la fin de la maladie.” *Traité de la Peste*, p. 424.

I have already risked an opinion, that, from M. Geoffroy's own representation, many of the operations he performed might have been safely dispensed with: at the same time it would be very uncandid to deny, that in many instances, his treatment in the advanced state of the buboes seems to have been judicious as well as successful.

to enlarge the aperture, troublesome sinuses sometimes formed, and the cure was protracted. I had occasion to see several cases of this kind, and such were perhaps more frequent than to me they appeared to be, judging from my own experience; because wherever more was required than simple ointments, which the patient could apply himself, my custom was to refer the case to the professed surgeons, hinting only what seemed necessary to be done. The usual mode of dilatation was by sponge-tent or gentian root, for the natives dreaded cutting instruments, and were inexpert in the use of them.

CH AP.
V.

The yellow basilicon sometimes, with a small proportion of red precipitate, was the usual dressing, and except some unfavourable disposition in the habit happened to concur, the ulcers in general healed more kindly than the venereal. The parotids gave most trouble. What was termed the spurious bubo was treated in the same manner as the others.

The discussion of the buboes was entirely the work of nature, no external applications whatever having been employed for that purpose; and where the glands remained hard and indolent, the dispersion of the swellings was for the most part committed to time. In a few cases where these indolent tumors lingered beyond four or five months, mercurial ointment was rubbed on the part; but I had not sufficient experience of that practice to satisfy myself of its effects⁴¹. I gave the cicuta in other instances, and I think with more sensible benefit. Those lingering swellings of the glands seemed to depend more on idiosyncrasy than on any thing peculiar in the original disease.

It is a remark of Timoni, that persons recovered from the plague, whose buboes have dispersed without coming to suppuration, were subject, in subsequent years, upon going into places

⁴¹ See a remarkable case wherein repellants were used for a bubo. *Traité de la Peste*, p. 452.

infected,

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infected, to feel obtuse pains in the seat of their former swellings⁴². I never met with an instance of this kind; and, without altogether discrediting the fact, am inclined to suspect, that a good deal in such cases may be referred to pure imagination⁴³.

The most part of the carbuncles which I had occasion to see, healed with very little or no assistance from surgery. In situations which admitted of a retentive bandage, a pledget spread with basilicon, and a little teribinthinate balsam of sulphur mixed, was applied to the eruption, and over that a simple poultice. Where the black crust had not yet begun to form, the poultice only was applied, and was continued till the crust was nearly completed. In parts where the poultice could not conveniently be secured, the eruption was from time to time anointed with the oleum palmæ: adhesive plasters of every kind were avoided till the inflammation had ceased or considerably abated; as they constantly before that period occasioned much pain. Among the natives a common application was oil beat up with yolk of egg, spread on a plantane leaf⁴⁴.

Scarifications were never admitted in the carbuncles, for the same reason that cutting instruments were rejected in the buboes.

⁴² "Multi per bubonis resolutionem curati, annis subsequentibus si peste infecta loca petant, eo in loco dolorem obscurum sentiunt in quo bubonem habuerunt." Phil. Trans. Vol. XXXI.

⁴³ The pains felt in the groin, by those communicating with the infected, and which are followed by no swelling, are I believe very often merely imaginary. I have myself, especially when alone in the evening without society, and fatigued by business, writing, and thinking on the same subject, been sensible of shooting pains in the groin; inasmuch, that I have several times gone to bed in the firm persuasion of having caught the infection, and on awaking the next morning, have hardly had resolution to touch the part, from the dread of finding my suspicions confirmed. But impressions of this kind vanished when the spirits were recruited, and the attention engaged in the business of the day.

⁴⁴ Plantago.

They might very possibly have hastened the separation of the crust or eschar, but that circumstance did not appear to be of material consequence, and the patient escaped the additional pain of the operation, as well as that occasioned by the sharp topical remedies usually employed to promote suppuration.

As to the expediency of scarification, and the stronger digestives, spirituous tinctures, &c. in the early stage of the disease, while formidable symptoms subsist and the eruption is in a spreading state, I am strongly inclined, after attentive perusal of many cases wherein that practice took place, to doubt it. But, in this, I wish to be understood as speaking with diffidence; my own experience being here defective, and the practice of scarification having been so generally recommended by those who disapproved of the rough treatment of the buboes.⁴⁵

The

⁴⁵ Messrs. Moine and Bailly, after disapproving of the extirpation of buboes, and recommending a milder treatment, think the case is different in respect to carbuncles, “ Il n’en est pas de même des charbons, il faut dès les premier moment les scarifier; y’ayant danger dans le retardement; nous avons vû de la largeur d’un denier, qui dès les premier jour, pour n’avoir point été *scarifiés & enlevés*, occupoient le lendemain la largeur de la paume de la main.” *Traité de la Peste*, p. 365, 577.

M. Bertrand pursued the same method in respect to scarification, but applied also an anodyne poultice. p. 380.

M. Chicoyneau’s method was nearly the same: “ Nous attaquions d’abord toutes ces espèces de charbons, par de scarifications, faisant des taillades à droit & à gauche, dans le milieu & sur les bords, jusqu’au vif, & supposé que l’escarre fut épaisse & calleuse, on la cernoit, emportant tout l’épaisseur & callosité, autant que la situation des parties pouvoit le permettre.

“ Nous n’avons pas trouvé à propos d’user dans ce traitement des cauterés actuels ou potentiels, que nous mettons en usage dans notre province, pour les charbons ordinaires parcequ’ les ayant employé dans le commencement, nous avons observé qu’ils attiroient des inflammations si considérables, que la gangrene s’y mettoit bientôt après, & que les bords se racornissoient. La pierre à cautere ne reussissoit guères que pour les petits charbons qui guérissent presque sans aucun secours.” *Traité de la Peste*, p. 239.

The

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The progress of the carbuncle, like that of the bubo, always appeared to me to be connected with the internal state of the disease; it spread variously, more or less rapidly, but at a certain period stopped of itself. The black mortified crust, in like manner, cast off faster or slower; that of the smaller carbuncles very often without any topical remedies whatever, and in the others, under the simple superficial dressings already described. It does not appear from the cases I have consulted that the most active surgery ever stopped the progressive spreading of the eruption, in the vigour of the disease, before a change favourable to that event had taken place internally. Where scarification has been indiscriminately practised, the ceasing of the gangrene has generally been ascribed to that and the topical remedies thus applied more effec-

The actual cautery is disapproved of also by Forestus; but the external treatment being in the province of surgery, he has little on the subject from his own experience.

Senertus approves of deep scarification, and hot stimulating topicals. Lib. iv cap. 6. de Febribus.

Hodges thinks the treatment of carbuncles must vary, and be more or less severe, according to circumstances. In some cases, not only deep scarifications, but the actual cautery are recommended from experience. Loimolog. p. 127.

M. Rochevalier at Marvejols, agrees with Messrs. Moine and Bailly. “ Nous faisons d'abord emporté l'escare, & les bords calleux des charbons, puis on les panfoit à l'ordinaire, & on les lavoit avec le vin tiède. Les lavages animés les racornoissoient toujours extrêmement. L'extirpations des charbons nous a paru le seul moyen d'arrêter les progrès incroyables qu'ils faisoient en très peu de temps.” *Traité, &c.* p. 601.

On the other hand Diemerbroeck is of opinion that the gentler the treatment of the carbuncle the better. Scarification proposed by Rhazes, Oribasius, Paulus, and many other writers, is condemned; and for the same reason blisters, cauteries, and other caustic, sharp applications are excluded. “ In hac nostra peste, experientia millies docuit hujusmodi altas scarificationes et excisiones infelicissime cessisse et semper carbunculos qui mitius tractabantur multo melius et citius curatos fuisse.” The usual application, the first and second day, was a red cabbage leaf with rape oil—sometimes suppurative cataplasms. The form of plaster was less suitable. *De Peste*, lib. iii. cap. 13.

tually; but on comparing such cases with my own journals, where a different method was pursued, I find no sufficient cause for altering my opinion, that scarifications were not universally necessary; that they often were superfluous, and in some instances seem to have been prejudicial. I have already remarked, that I met with no carbuncles of that extraordinary size described by some authors⁴⁶; such may require extraordinary treatment; but I think it will appear from the cases referred to, that operative surgery in respect to the carbuncle is seldom or ever requisite in the dangerous stages of the plague, and has been employed with success only where the infected were in a convalescent state⁴⁷.

The

⁴⁶ *Traité de la Peste*, p. 283, 577.

⁴⁷ In the case narrated by M. Chicoyneau, *Traité de la Peste*, p. 282. The carbuncle had spread to a very extraordinary size. It was the seventh day before any medical assistance was given, and there were, besides the carbuncle, no formidable symptoms. The scarifications might probably be necessary in some degree here, but they certainly did not put a stop to the spreading of the gangrene, which does not seem to have stopped till the 11th or 12th.

In the case by M. Verny, *Traité*, p. 278, there were 12 carbuncles, most of them the size of a crown, and, what was uncommon, one was situated in the throat internally (*dans le fond du Goffier*). Nothing whatever had been done the first five or six days, and the situation of the patient was such that evacuations were judged improper. The eruptions were all scarified, and the glands of the buboes extirpated; a copious discharge of thin sanies followed, and on the ninth day the most alarming symptoms disappeared.

M. Verny affirms that the patient must infallibly have perished, had it not been for the surgical treatment of the eruptions, and the internal remedies judiciously administered, p. 291. But it may be remarked, that, cordials excepted, no internal remedies were given; and it may be doubted whether the suppuration, to which so much is ascribed, was hastened by the painful operations performed on the eruptions.

The reflexions subjoined to this case merit consideration: but too much seems all along to be attributed to the external treatment of the eruptions, as if upon that alone their suppuration depended.

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The consequence of carbuncles on the wrist and other tendinous parts, proved sometimes a lameness or contraction of the member, which very probably might have been prevented in some instances by skilful treatment; and in other parts the speedier cure of ulcers might have been promoted by topicals, the application of which, in the earlier stages, would only have produced unnecessary, if not prejudicial irritation.

I beg leave to repeat, that it is with diffidence I have ventured my sentiments on this subject, and with due deference to the opinion of those more versed in modern surgery, who may happen to differ from me.

Diemer-

Of twelve cases narrated by M. Couzier, (*Traité*, &c. p. 383) in three only carbuncles are mentioned, Obs. 9, 10, 11. p. 393, and in all the eruptions did very well without scarification.

The same author, p. 397, gives a case where a caustic was applied the second day, to a carbuncle on the upper lip, and appears to have done harm, by unnecessary irritation; though the subsequent swelling of the face ought not to be solely imputed to that, as the swelling, &c. always attended in some degree in the natural course of the carbuncle in that situation.

M. Geoffroy makes a distinction between the carbuncle and the anthrax, though, in the plague, the latter seems to be merely a different stage of the same eruption.

His mode of treatment was somewhat different from that of the other surgeons, for he mixed a little sublimate with the basilicon, and thought it less apt to raise inflammation than the other caustic applications. *Traité*, &c. p. 436.

Obs. 3d, p. 441. The carbuncles were scarified, and the sublimate ointment applied the second day, but the suppuration did not come on earlier than the usual period, nor till the disease had taken a favourable turn. The fever disappeared the seventh. There is reason for thinking that this case from the beginning was not dangerous, and that the delirium, &c. were increased by the treatment of the eruptions.

Obs. 9th. A small carbuncle was unnecessarily scarified, and the escharotic applied the second day. The eruption, as usual, spread; and the patient died the fourth. The imprudent use of cordials was here suspected of augmenting the internal heat.

Obs.

Diemerbroeck makes mention of carbuncles attended with no symptoms of internal disorder, and which appear to be merely local, produced by external contact, without affecting the habit. I have observed a few instances seemingly of this kind. One particularly where a woman suckling a child of a few months old, who had a carbuncle on the cheek, got a small carbuncle on the breast. She had no other signs of infection, and the carbuncle passing through its usual stages, healed favourably. The child died the fourth or fifth day.

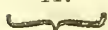
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V.
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Whether the lymphatic glands may not in like manner, with the skin, be sometimes locally affected, without affecting the habit, I shall not presume to determine. The supposition is probable from analogy; but the signs of an uninfected habit are too equivocal to justify any variation in the usual treatment of either buboes or carbuncles.

I was told that some of the Turkish surgeons applied the cautery to small carbuncles, with ill success; others used the vitriolic caustics. I saw a few instances of the latter practice, and it seemed to have done harm.

Obs. 16th. p. 457. A very unnecessary scarification of a small carbuncle was followed by an hemorrhage, and the patient died. The repeated bleeding and whole treatment of this case was very extraordinary, and the surgeon's doubts about bleeding were well founded.

Obs. 19th. In this case there were five carbuncles, all were scarified, and the escharotic ointment applied; but no suppuration took place, nor indeed was there time for it, the patient dying the third day after the operation. It does not appear what day of the disease.

*Of Reinfection¹ and Relapse.*

IN the plague, contrary to what happens in the small-pox, persons are liable to be infected more than once; not only at long intervals, and in different climates, but in the same town, in the course of the same pestilential season. This fact, which has been doubted formerly by some physicians, and by others expressly contradicted, has been long established upon the best authorities².

That instances, however, of second infection are proportionally met with very seldom, may be inferred from their being wholly unnoticed by several practitioners, to whom an omission of such consequence to the history of the disease, can hardly be imputed;

¹ I have adopted, perhaps without sufficient authority, the term reinfection, in contradistinction to relapse, for reasons to be given hereafter.

² M. Samoilowitz is one of the last writers who opposes the commonly received opinion, and, having proposed inoculation of the plague, contends strenuously, that the disease does not attack the same person twice in the same season. He met with no instance of it in Russia, in 1771; and gives an example of eighty persons employed under him in a pestilential hospital, in attendance upon the infected, and who were lately only recovered from the plague, all remaining unhurt, though hourly exposed in the most dangerous situation. He conceives Mertens (who also gives an account of the plague at Moscow, in 1771) to have been mistaken or misinformed, when he asserts, (p. 123. *Observ. Med.*) “*experientia comprobatum fit, hanc (pestem) illos non solum in variis vitæ periodis, sed et in eadem epidemia, bis, aut sæpius occupare posse.*”

Though Mertens produces no particular instance from his own experience, he had sufficient grounds for his assertion; and his opinion is confirmed by Orræus, who writes from very extensive experience in Russia, in 1770 and 1771, and had met with several instances of reinfection. “*Pestem etiam repetitis vicibus in uno eodemque subiecto, recurrere, sæpiusculè observatum fuit.*” *Descriptio Pestis, in Jussia et Moscuæ, ann. 1770 and 1771. Petropol. 1784.*

as well as from the popular opinion which prevails so universally, that a person once recovered from the plague is secure, at least in the same season, from being infected a second time. CHAP.
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This popular error, which in as much as it encourages those who have once escaped with life, to expose themselves more freely in the attendance on others, may be said to have its use, is found to maintain its ground in countries where the frequent recurrence of the plague might be expected to have furnished proof sufficient to have long ago exploded it. But the opinion is common in the Levant; and so many who thus expose themselves remain unhurt, that a few instances to the contrary are soon forgotten. In Europe the popular prejudice is likewise predominant, and the persons devoted to the most dangerous offices, are chosen in preference by the magistrates of the police, from among those who have already had the distemper³.

It stands recorded by Thucydides, that in the plague of Athens, “ those who were recovered had much compassion on those that were dying, and on those who lay sick, as having known the misery themselves, and were now in a secure and safe situation, for it never seized the same person twice *so as to be mortal*”⁴.

Alexander Massaria has been represented by Senertus⁵ and Diemberbroeck⁶, as adopting an opinion that the plague never attacks the same person twice; though from what the author

³ “ Chaque brigade avoit des hommes de travail que l’on choisit parmi eux qui avoient eu le mal—& le linge lessivé par des personnes échappées du mal.” Relat. Hist. p. 438, 440. See also Traité, p. ii. p. 147, 260.

⁴ Επιπλεον δὲ ὅμως οἱ διαπεφευγότες τὸν τε θνησκοντα καὶ τὸν πόνεμενον κητίζοντο, δια τὸ προσιδέναι τε καὶ αὐτοὶ ἤδη ἐν τῷ θαρσαλέῳ εἶναι, δις γὰρ τὸν αὐτὸν πᾶσι καὶ κτείνειν, καὶ ἐπελάμβανεν. Thucyd. de Bello Pelopones. lib. ii. See Fabius Paulinus Prelectiones Marcia, lib. ii. p. 485.

⁵ De Febribus, lib. iv. cap. 4.

⁶ De Peste, lib. iv. Hist. 37.

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himself says on the subject, it clearly appears that his own experience, at Vicenza, had taught him the contrary: and he not only cites Thucydides with more accuracy than some others have done, but corrects a mistake in respect to second infection never proving fatal. In accounting for those so often escaping unhurt, who are employed in burying the dead, he ascribes it chiefly to their having had the distemper before. “Hujus rei causæ cum aliæ ab aliis
“afferantur, certiores illam et veriores cæteris esse nos existimus, quod ei plerique altera pestilentia laboraverint, sicuti
“communi fere omnium consensione, longiorque experientia
“jamdiu confirmatum esse videtur, ut nemo bis pestilenti morbo
“male inficiatur: quod privatim annotavit Thucydides, qui hoc
“in primis nomine quicumque evaserunt beatos ab aliis estimatos
“fuisse tradit, ac si illi nulli amplius mortis periculo essent obnoxii: quod quidem privilegium quanquam majori ex parte verum, neque prorsus a ratione alienum esse nos arbitramur, illud tamen quod apud nos res ipsa monstravit, haud perpetuo verum esse, et quandoque fallere censendum est.”⁶

The opinion therefore adopted by Massaria was, that those who had once had the distemper are much less liable than others to contract it again, but are not altogether exempt, and may even suffer mortally in a second attack: in which he concurs with most of the practitioners who have explicitly mentioned the subject.

Mercurialis⁷ and Van Helmont⁸ both agree, that persons are very seldom attacked twice by the plague. In above one hundred and twenty pestilential histories recorded by Diemerbroeck, I find two only of persons infected twice in the same season; but he had met

⁶ Massariæ, Tract. I. de Peste. Oper. Lugd. 1669, p. 509.

⁷ Præterea idem contingit in magnis pestilentiis quod in illis qui semel passi sunt pestem, ut de sua retulit Thucydides, et qui semel passi sunt quartanam, quos experientia comprobatum est, non ita cito, aut nunquam illis tentari. Mercurialis, de Peste, c. xix.

⁸ “Quare qui a peste surrexerunt, eodem anno vix æque facile a peste inquinantur.” Van Helm. Tumul. Peste, p. 173.

with several instances of persons attacked at Nimeguen, who had suffered the plague some years before.⁹ The Augustin Friar, who gives an account of the plague at Genoa in 1657, admits the possibility of re-infection, but asserts that it happens very rarely. In the multitude of sick he had occasion to see, he only met with three or four instances. But he remarks, that relapses, or persons falling ill again before perfect recovery, were often represented as being a second time infected with the plague.¹⁰

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VI.

Timoni declares instances of second infection, in the same year, to be very extraordinary at Constantinople.¹¹ M. Chicoyneau gives the history of a young lady, who died in forty-eight hours of a second attack of the plague, and considers the case as remarkable.¹² In a number of pestilential cases collected in the *Traité de la Peste*, I find four or five only of re-infection,¹³ and one of them seems to be improperly so termed.¹⁴ M. Bertrand, at Marseilles, suffered three attacks of the plague, or rather relapsed twice; for all the three happened within the space of four or five weeks.¹⁵

It

⁹ Diemberbroeck de Peste, lib. iv. hist. 37 and 45.

¹⁰ Li Lazaretti de la citta et riviera de Genoua. P. Antero Mariadi S. Bona ventura Agostiano. p. 299. The father, after mentioning a few instances of re-infection he himself had seen, adds, “e benche cio sia seguito, e per consequenza niuno debba riputarlo impossibile, pure deve anche riputarfi caso raro e difficilissimo da succedere;” “mentre tra tante centanaia, anzi migliaia di risinati solo questi tre, ch’io sappia, repigliarono il male.

¹¹ “Pro monstro habetur si quis a peste perfecte sanatus, eodem anno peste corripiatur.” *Philos. Transf.* Vol. XXXI.

¹² *Traité de la Peste*, p. 322.

¹³ *Traité de la Peste*, p. 395, 594, 514.

¹⁴ *Ibid.* p. 395.

¹⁵ “C’est une opinion assez commune parmi les peuple, qu’on ne peut pas prendre deux fois de suite cette maladie. C’est dans cette confiance que ceux qui en ont été guéries, se livrent plus facilement au service des autres malades, & par-là cette fausse créance à son utilité: cependant cette opinion est fausse, & on a vu la contraindre dans cette conjoncture. J’en ai fait moi-même une triste expérience.” *Traité de la Peste*, p. 381.

Thus far M. Bertrand himself, but the historical relation gives a more particular account of the matter, (*Relat. Hist.* p. 209) and from that I think it may be inferred, he rather suffered relapses than repeated infections.

M. Sa-

BOOK
II.

It may be remarked, in general, of the French physicians in the year 1720, that they frequently used the words *relapse* and *second attack* as synonymous; a circumstance which, if not attended to, sometimes renders their meaning obscure. Thus M. Chicoyneau terms the case of the young lady, “*Une nouvelle attaque, une rechute, une seconde attaque de peste;*” and in describing the subjects most liable to second attacks, he seems rather to refer to *relapse*, than to the attack of the disorder a second time after the patient had been perfectly recovered.¹⁶ In like manner the historical Relation of the Plague, at Marseilles, often uses the term *relapse*, where second infection is certainly to be understood;¹⁷ for that

M. Samoilowitz also suffered three different attacks, that is, he relapsed twice; for by his own account, the first bubo having dispersed, the pestilential virus, received by the first infection, still remained in the habit. *Lettre a l'Académie de Dijon*, p. 57.

If the second and third attacks were not consequences of the first infection, they must be ascribed to infection contracted afterwards in a communication with the sick, in which case it must be supposed, contrary to the common opinion, that a person already infected, who continues among the sick, is susceptible of super-added infection. If this be not supposed, I do not see why M. Samoilowitz should have been more liable to a fourth attack, by continuing to expose himself, than if he had never been infected before. “*Si je fusse encore resté dans les hopitaux, sans doute la peste eût pu me livrer un quatrième assaut.*” He had before remarked, that unless the virus was expelled either by the suppuration of a bubo, or a total separation of a carbuncle, there was danger of a relapse: “*d'autant que le venin de la contagion restait dans son corps*, p. 59.

¹⁶ “*Le second fait, qui mérite quelque attention, est la rechute ou la seconde attaque de peste—Ce fait détruit le préjugé vulgaire, que les personnes qui ont eu une fois la peste, ne l'ont pas une seconde; ce que nous pourrions encore mieux détruire par un bon nombre d'autres observations faites dans le cours du traitement de cette peste, par lesquelles il consiste que les personnes qui dans le tems d'une première attaque n'ont pas été bien viduées, ou nettoyées par quelque voie que ce puisse être, ou qu'après l'avoir effuyée, ne se sont pas bien ménagées, en ont éprouvé une seconde ordinairement plus rude que la première. On pourroit même en citer qui ont eu jusqu'à trois attaques de peste.*” *Traité de la Peste*, p. 341.

¹⁷ “*Tout ce que fit la nouvelle saison, ce fût de nous donner des malades pestiférés d'une espèce nouvelle, je veux dire les rechutes; on étoit déjà revenue de*
“ *cette*

that surely cannot properly be called a relapse which does not make its appearance till long after the patient had been cured of the first attack, “ long tems après que la malade avoit été guéri du premier mal.”

CHAP.
VI.

A memoir on the subject of relapses, which are represented as having been common in the latter period of the plague, at Marseilles, gave occasion to a consultation of the physicians and surgeons in that city; at which M. Deidier presided; and it is remarkable that the opinion almost unanimously adopted by the assembly is, in some respects, directly opposite to that of M. Chicoyneau, as it is in all to what is contended for by the Author of the Memoir. This paper, as well as the consequent consultation, being on several accounts interesting, the principal articles, of both, are transcribed below.¹⁸

In

“ cette prévention que le mal ne pouvoit se prendre qu’une seul fois; car on avoit vu quelques rechûtes dans le cours, dans le fort même de la maladie: quelques uns étoient venuës des que le malade avoit été guéri du premier mal, & d’autres long tems après, par des excès qu’il avoit fait; mais les exemples en étoient si rares, qu’on les auroit aisément comptés. Elles furent plus fréquentes dans la suite ces rechûtes, & sur tout dans le mois de Mars.

“ Dans le fort du mal, mais sur-tout sur le fin du second période, & pendant le troisième, plusieurs avoient eu le mal benin & des éruptions si favorables, qu’elle n’avoient donné aucune suppuration, ce qui doit s’entendre principalement des bubons, qui disparoissoient en peu de jours, & se terminoit par une heureuse résolution, sans aucun symptôme fâcheux pour le malade. Plusieurs de ceux la essuyèrent dans le printemps une nouvelle atteinte de mal, soit par la révolution que la nouvelle saison faisoit dans les humeurs, soit par d’autres raisons que nous laissons aux medecins à déduire.” Relat. Histor. de la Peste de Marseille, p. 458.

¹⁸ They are to be found in the *Traité de la Peste*, p. 529; and a more particular account of the occasion of the consultation, in the *Relation Historique*, &c. p. 459.

Mémoire touchant les rechûtes qui peuvent perpétuer la contagion.

Trois sortes de malades peuvent tomber en rechûtes.

I. Ceux à qui il est resté de fistules ensuite des bubons mal pansés. Tant que ces fistules fluent, elles sont à craindre, sur-tout si elles viennent à se boucher sans avoir été mondifiées, l’humeur arrêtée peut fermenter de nouveau & refluant dans le sang,

B b

y’allumer

BOOK

II.

In the Memoir submitted to the deliberation of the physicians and surgeons, the author supposes the patient not yet completely free from the disease, though the fever and some other symptoms may have ceased; that the infectious principle remains latent and inactive, but may, by excesses, be again excited and produce a disease contagious like the first: the patient, in the interval, being supposed not in a state capable of communicating the plague to others, though he becomes so after the resuscitation of the pestilential symptoms.

That the disease thus revived, in as much as it proceeds entirely from the first infection, is properly termed a relapse, will readily be granted; but when it is declared, in answer, that such persons are less susceptible of the disease than those are who had already suffered it, the general position applies rather to second infection than to relapse; for it never was contended, that a person not yet recovered from the plague, is not subject to relapse.

Of all controversy, that merely concerning words is in general the most frivolous; but in the present case it becomes of importance to adhere strictly to the proper sense of relapse, in order to distinguish disease produced by first infection, at whatever period it happens, and what arises after the patient's recovery, from infection newly contracted. “ Ce que l'on doit propre-

y'allumer une fièvre qui, venant du même principe pourroit redonner la même maladie, qui pour lors seroit véritablement contagieuse.

II. Ceux dont les bubons n'ont suppuré qu'imparfaitement, dont les glandes n'ont pas été consommées par la suppuration. En ceux-la le moindre excès peut mettre l'humeur & le principe contagieux, qui est encore dans la glande, en mouvement, le communiquer au sang, & rallumer ainsi la fièvre pestilentielle, dont les suites ne sont pas moins à craindre que celles de la première.

III. Ceux dont les bubons, n'ont point du tout suppuré. Si ceux la n'ont point pris la précaution de se purger au moins deux ou trois fois, il est constant qu'ils ont encore la vice de la contagion dans le corps, lequel ému par le moindre excès peut leur redonner la même maladie aussi contagieuse qu'avant.

“ ment

“ ment apeller rechûte, est la suite d’un mal qui na pas été bien
 “ guéri, & qui se renouvelle par un reste de malignité que les
 “ remedes, les précautions, & le temps n’ont pas entièrement
 “ détruit.”¹⁹ This definition, which I have on purpose selected
 from the French, sufficiently distinguishes relapse, from what I
 all along understand by repeated attacks of the plague, or *re-*
infection.

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The result of the consultation was, that none of the cases stated
 in the Memoir were of a nature to raise any apprehension; because
 all the subjects having already had the disease, were much less
 liable to have it again; and could not communicate it to others.

“ Il a été unanimement délibéré—que les trois fortes des malades
 “ proposeés dans le mémoire, ayant déjà eu la peste, étoient beau-
 “ coup moins susceptibles de la reprendre, que ceux qui n’en
 “ avoient pas été attaquées; & qu’on ne devoit aucunement ap-
 “ préhender que la maladie se renouvellât chez eux, ni qu’ils
 “ pussent la transmettre en communiquant avec autrui.”²⁰

It might reasonably have been expected that so decided an opi-
 nion, in contradiction to what was partly alleged as matter of ex-
 perience,²¹ would have been supported by a detection of facts, by
 opposite observations, or by direct experiment; but nothing more
 is produced than simple affirmation, and some theoretical argu-
 ments on the nature of ferments. The decision makes no distinc-
 tion between ulcers of short or long standing, but pronounces the
 matter of all indiscriminately devoid of any contagious property:
 yet the practice of extirpating or consuming the buboes, which

¹⁹ Traité de la Peste, par. ii. p. 235.

²⁰ Ibid. p. 530.

²¹ “ Un des chirurgiens de la marine representa que plusieurs femme dès gens de
 “ ces équipages (des galeres) n’ayant eu qu’un mal léger, pourroient facilement le
 “ reprendre & le communiquer à leur mari & que l’on commençoit à voir en ville
 “ quelques-uns de ces malades par rechûte.” Relat. Historique, p. 459.

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II.

had been countenanced by the consulting physicians, seemed to imply that they once thought the buboes the receptacles of the pestilential virus; and if so, it became consistently requisite to show at what period the matter issuing from them lost its contagious power. M. Deidier, indeed, entertained a singular notion that the matter of the pestilential bubo was at no time whatever contagious, the disease being communicable only by means of the bile; but this opinion, purely hypothetical, was not likely to influence the other gentlemen concerned in the consultation.²²

The decision on the first two articles of the Memoir is totally unsupported by facts,²³ and, in respect to the first, is defective in point of precision, for M. Deidier himself, in an account he gives of the result of the consultation, seems to allow the pus of the pestilential eruptions to be, in a certain degree, contagious, or at least that it contains a portion of the pestilential poison, which it loses in a short while. His words are, “ J’ai constamment observé
“ que lorsque les éruptions de la peste viennent à suppurer, les
“ malades sont ordinairement hors de tout danger. Leur pus ne
“ renferme aucun venin pestilentiel qui ne soit bientôt détruit,
“ comme vous le dites Monsieur, & nous l’avions jugé de même
“ à Marseille en corps de faculté assemblée.”²⁴

²² M. Deidier made several experiments with bile taken from persons who had died of the plague, from which it appeared that the distemper was communicated to dogs by injecting bile into the veins, or applying it to fresh wounds; and that bile taken from a dog so infected, communicated, in like manner, the plague to another dog. See *Traité de la Peste*, p. 202, 502, &c.

²³ Deliberation sur le mémoire.

I. “ Les fistules qui succèdent aux bubons pestilentiels mal pansés, doivent être
“ regardées comme toutes les autres fistules, qui peuvent épuiser le malade par le long
“ écoulement des matières, ou produire une fièvre lente par le retour du pus dans le
“ sang; mais ce pus n’est point du tout capable de produire la peste.”

II. “ Ceux dont les bubons n’ont suppuré qu’imparfaitement, & dont les glandes
“ n’ont point été consommées par la suppuration, ne peuvent tout au plus que tomber
“ dans les cas précédens; ils deviendroient fistuleux sans être attaqués de la peste.”
Traité de la Peste, p. 530.

²⁴ *Ibid.* p. 519.

The

The decision on the third article of the Memoir seems just, and agreeable to experience;²⁵ and it appears very improbable, on the supposition of any infectious principle lurking in the habit, that the purgation proposed for expelling it would have been successful.

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VI.

Upon the whole, it may be remarked, that an indiscriminate application of the terms relapse and re-infection, by confounding two accidents in themselves materially different, leads to an erroneous notion of repeated attacks of the plague happening much more frequently than they are found to do in reality. The description of the latter period of the plague, at Marseilles, in the spring of the year 1721,²⁶ furnishes instructive proof of this fact, which in its influence on the apprehensions of mankind, as well as on the administration of the police, comes to be in several respects of important consequence.

Under the appellation of re-infection, or fresh attack of the plague, are here comprehended those cases only wherein the patient had been, to all appearance, perfectly recovered from the first; and where the symptoms of the second disease seemed as manifestly to proceed from recent infection, as those which had attended the first. I met with no instances of this kind unaccompanied by buboes or carbuncles; but have no doubt of such happening, in the same manner as in cases belonging to the first class of primary infections.²⁷

²⁵ III. Ceux dont les bubons n'ont pas suppuré, quoiqu'ils n'ayent pas pris la précaution de se purger, ne doivent pas craindre le retour du mal dont le levain s'est entièrement brisés & dissipé par la transpiration, par les sueurs ou par les urines; ainsi ces derniers doivent être moins suspectes que les précédens. *Traité*, p. 580

²⁶ *Relat. Histor.* p. 458.

²⁷ In the case of Mademoiselle Kilby, narrated by M. Chicoyneau, no eruption appeared except a small carbuncle which came out half an hour before her death; but the body being opened, the distemper was found to have made dreadful progress internally. *Traité de la Peste*, p. 349.

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II.

It appears from my journals and memoranda, that in four thousand, four hundred pestilential cases, I met only with twenty-eight of re-infection, well ascertained: a proportion much under what I expected, and which may account for some practitioners not having met with them at all. I had occasion to see none myself who suffered more than two attacks; but have been credibly informed of persons having suffered three and even four. Re-infections were always regarded as remarkably uncommon; but such repeated attacks as very extraordinary: and I suspected that accessory eruptions in a late stage of the disease were sometimes mistaken for the signs of recent infection.

The twenty-eight cases above-mentioned, are to be understood with a restriction to persons who had suffered the plague before, sometime in the period commencing in the year 1760; for though the question was generally put to all of a certain age, whether they had ever in their lives been infected formerly, I found it impossible to attain satisfactory information, so far back even as the year of the preceding plague in 1742. Some were at that time too young to remember whether they had had the plague or not; the accounts of others, who said they had, were for the most part too vague to be depended on: of the proportion, therefore, of such as suffered the disease then, and were now again infected, I can say nothing with certainty, but conjecture it to have been very inconsiderable.

The cases marked below have been selected from the journals as instances of re-infection.²⁸ In four of them the buboes in the first attack had dispersed; in the other six there had been a discharge from the eruptions. Of the other eighteen some, as being similar, have been omitted as superfluous, and some, on account of the histories of the first attack being still more imperfect than those I have produced. In these, like the others, the buboes, in a majority of cases, had suppurated; and of the whole twenty-eight, not more than six or seven terminated fatally.

²⁸ Case CXI. CXII. CXIII. CXV. CXVI. CXVII. CXIII XIX. XX.

The want of a greater number of cases of re-infection, less defective in the narrative, and in which an accurate description of circumstances, in both attacks, might probably lead to useful deductions, may be reckoned among the desiderata in the History of the Plague. But the collecting of such cases is attended with peculiar difficulty; both on account of their rare occurrence, and the chance of the physician not having an opportunity of seeing the patient in the first attack. Those that accident has put in my power of communicating, do little more than intimate the proportion in which second attacks were met with, leaving the real proportion to be more accurately determined by future experience: in like manner, though the patients, whose buboes had dispersed, appeared not more liable to be attacked again than where there had been a copious discharge from the eruptions in the first attack; the confirmation of the fact depends on a greater number of observations.

The distinction established between relapse and re-infection, however clear to the intellect, is not always, in practice, of such easy application to particular cases.

In giving the description of pestilential eruptions, it was said, that where more than one were found in the same subject, they did not all make their appearance at once, but at uncertain periods, successively: the carbuncles having been observed no later than the 18th day, but the buboes so late even as the 24th and 28th.²⁹

The appearance of accessory eruptions in the first or second week, or where there was a continuation of pestilential symptoms, occasioned no difficulty, being without hesitation referred to the first infection: nor were they reckoned of an ambiguous kind where they appeared later, any time within the month, while the first eruptions were yet in a progressive state, or the ulcers still remained open. But where the pestilential symptoms had disappeared in

²⁹ See Chap. IV.

BOOK the first or second week; where the first buboes had dispersed, or
 II. the carbuncles were healed, and the patient had been for some days in a convalescent state; the eruptions protruded, in the third or fourth week, were under such circumstances considered as ambiguous; it being no easy matter to determine whether they were to be referred to a resuscitation of the latent virus, or to infection newly contracted. On the first supposition, the case was clearly a relapse; on the second, a fresh attack, or re-infection.

The accessory eruptions, in relapses, were sometimes preceded by febrile exacerbations, but not constantly; and even in first infection the eruptions were sometimes preceded by little or no sensible disorder. From that circumstance alone, therefore, nothing could be concluded with certainty. In general, however, the exacerbations preceding eruptions in relapse, were seldom accompanied with symptoms so alarming as in real infection; and no instances were met with of relapses terminating fatally. In re-infection, the symptoms preceding the eruptions were less ambiguously pestilential, the distemper advanced more rapidly, and sometimes terminated in death. Slighter cases of re-infection resembled those of first infection belonging to the fifth class.

That the eruption of accessory buboes was sometimes preceded by an exacerbation of symptoms, sometimes not, will appear from several of the histories marked below,³⁰ none of which were reckoned ambiguous. But the case of the woman, where the bubo had dispersed, and a new one appeared in the same place on the 40th day, without any visible disorder preceding,³¹ may, perhaps, be reckoned more doubtful. Some doubt also may arise about the case of the Jewish girl, where a parotis appeared on the 30th day.³² Both however, for reasons subjoined by way of remark to these cases, have been reckoned re-infections.

³⁰ Case LXXV. CIII. CVIII. CIX. CX.

³¹ Case CXI.

³² Case CXIII.

All the cases deemed relapses, which fell under my observation, were characterised by fresh eruptions; for though a patient in a state of convalescence, might, in the second or third week be seized with a vomiting, diarrhœa, or febrile exacerbations, yet these accidents being common to convalescents from ordinary diseases, he was not, though reduced to a worse condition than before, always considered as suffering a pestilential relapse; the symptoms did not assume that type, and seldom or ever were alarming. If, however, the term relapse be extended to these cases, such were not uncommon: whereas the others were not met with in a much larger proportion than second attacks of the plague.

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VI.

When I say this, I speak only from what I had occasion to see myself; and am aware that it does not agree with an observation, formerly mentioned, of a physician at Constantinople, whose authority I respect;³³ nor with a remark I recollect the having heard in conversation at Smyrna, that convalescents from the plague, who did not observe a strict regimen for thirty or forty days, were in danger of relapsing.

To an opinion nearly of the same kind, at Aleppo, is owing the custom of carrying those recovered from the plague to the bagnio, at the expiration of forty days; after which they are considered at liberty to return to their ordinary manner of living. But, though that term is generally deemed the most proper for going to the bagnio, convalescents very often go thither within the month; and as to regimen, it is often violated as soon as the patient is able to walk about. I have known many hundred instances of convalescents who, regardless of the state of their eruptions and in spite of all admonition, have in the third week thrown aside all restraint, abstaining neither from animal food, crude fruits, nor spirituous liquors.

³³ Timoni.

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II.

The common consequence of such excesses were ordinary disorders in the bowels; but as before remarked, symptoms in a strict sense pestilential were seldom observed to follow. Relapses, distinguished by new eruptions, were met with so rarely, and happened so indifferently in cases where no excesses whatever had been committed, that they seemed rather imputable either to peculiarity of constitution, or of the disease; for had intemperance, without the concurrence of other causes, been sufficient to produce relapses, instead of their being met with seldom, they would have been no less common than the irregularities supposed adequate to their production.

It may be remarked further, in respect to the bagnio, that in four of the cases of re-infections, the patients were taken ill immediately after their return from it. The sudden appearance of pestilential symptoms, in these instances, might have left room to suspect their proceeding from a resuscitation of the former disease, rather than from recent infection; had not many instances concurred at the same time, of persons in perfect health before, seized no less suddenly, either whilst in the hot room of the bagnio, or within a few hours after. Towards the end of July 1762, I had occasion, in one day, to see no less than seven patients who had been taken ill in that manner; some of whom had been shut up in their houses for two months preceding, but relying on the common report of all danger being over, had imprudently ventured abroad from their confinement.

The promiscuous concourse at the bagnio, rendered it at all times of the pestilential season, a very dangerous place, but more especially towards its decline; when not only convalescents, but their attendants and other persons from infected houses, used to flock thither. However obvious the propriety of abstaining a month or two longer, from such hazardous intercourse, the impatience of numbers was not to be controlled, and the large proportion who escaped harm, compared with those who suffered for
their

their temerity, was considered as a proof of the plague drawing towards its termination. It should, however, be remarked, that instances of persons attacked, for the first time, at this period, greatly exceeded those of convalescents attacked a second, a circumstance in confirmation of their being less liable to contract the distemper again: and from persons of both descriptions, being at that period actually infected, it sufficiently appeared, in contradiction to the vulgar opinion at the time, that the plague had as yet not lost its contagious property.

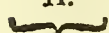
In what time after its reception, the pestilential virus begins to discover itself, is a point of difficult discussion. The period, from unknown causes, varies in different subjects; but its effects, in some instances, seem to be almost instantaneous: or, at least, become perceptible in a few hours. I venture to assert this from the having known persons who had long been shut up, taken ill almost immediately, or in a day or two, after their coming out from confinement.

M. Bertrand places the extreme term at thirty-five days, beyond which no instance was observed at Marseilles.³⁴ In those at Aleppo, who were taken ill after their entrance into confinement, and supposed to have contracted the infection before their shutting up, I met with no instance of the disease discovering itself later than the 9th or 10th day: but as such persons had been exposed before their confinement, it was impossible, but by conjecture, to fix the time of infection.

³⁴ “ Pour ce qui est du temps qu’il faut à ce venin pour se développer, quand il y a une fois pénétré dans le corps, il n’y a rien de réglé; c’est aux uns plutôt, aux autres plus tard, suivant les différentes dispositions du sang, & selon le concours des causes externes, qui le mettent en jeu & en action. Dans les uns, presque sur le champ, au moins du jour au lendemain; ç’a été le plutôt: dans les autres, deux, trois, quatre, cinq, six jours, &c. jusques au trente-cinquième jour, qui est le terme le plus éloigné qu’on ait pu observer.” *Traité de la Peste*, p. 381.

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II.



I take it to be no less undetermined how long the bodies of convalescents from the plague, retain the power of communicating the infection to others; and at what period the matter discharged from pestilential eruptions loses its infectious property. Both circumstances are of importance in respect to preservative regulations; but, so far as I know, no attempt has been made to ascertain them, unless it be by analogical deductions from variolous, venereal, or other contagions: and these being merely hypothetical, no certain conclusions can be established.

A P P E N D I X.

C H A P. I.

Cases in the Plague.

C A S E I.

THE porter of Abfey's khane, and his fon, a youth about twenty years of age, were taken ill on the feventeenth of May. The fon died on the 3d day, and (as I learned fome weeks after) had a bubo in the groin; a circumstance which, at the time, was concealed by the people about him. 1760. May.

The father was a robust man, upwards of fixty. I saw him, for the first time, on the evening of the 5th day of the difease. On my entrance into his chamber, he lay as if comatous, but answered distinctly when interrogated about his complaints. He said he found himself extremely ill, and was tormented with inward heat, but was not sensible of any other pain, than a constant burning, at the pit of the stomach, or, as he expressed it, at his heart. The attendants said, he had been, at times, much more unquiet and ill than he then seemed to be, and that they had searched, but discovered no marks of infection. He had vomited frequently during the first three days, and when the vomiting left him, it was succeeded by a looseness, which still continued. He had been twice bled. I found his pulse sunk, and very quick, the eyes muddy, the tongue not parched, or discoloured; the hands and arms felt cold to the touch, and were covered with a clammy sweat.

On the 6th, early in the morning, he appeared, to his attendants, to be much better. When I visited him, in the afternoon, he was fupping broth, which he took as if with appetite, though he seemed to swallow with fome difficulty. The pulse remained as before, and the hands were still cold and clammy.

In the evening, I found him in all respects worse. He was quite insensible; his extremities cold; and he lay on his back, with his knees drawn up, and his eyelids half closed. He expired in the night. His back and thighs became livid, immediately after death.

The attendants persisted in their first assertion, of his having no buboes.

CASE

CHAP.

I.

1760.

May.

C A S E II.

In the same chamber with the above patient, lay his brother, a robust youth, between twenty and thirty, who had been taken ill on the nineteenth, I visited him the evening of the 3d day. His pulse was low, but not very quick; his arms cold and clammy; his eyes muddy, in an uncommon degree, and his countenance remarkably confused. He complained of inward heat; constant thirst; intense pain at the heart; and extreme inquietude. A vomiting had attended from the 1st day, and water, of which he drank insatiably, was seldom retained on the stomach. His body also was loose, but not to a great degree.

Though I was assured by the attendants that he had no eruptions, I determined to search him myself; my private suspicion of the nature of the distemper being, from other circumstances, highly raised. I therefore desired the patient, who was quite sensible, to let me know when I gave him any pain, and then proceeded to touch the groins and arm-pits, without causing any complaints. I was about giving over the search, when I perceived a hard swelling, about the size of a small hazel nut, deeply seated in the left axilla, near the edge of the pectoral muscle. It was a swelled, moveable gland; the skin was a little protruded, but retained its natural colour. The patient affirmed he felt no pain from pressure, in this swelling; but he was probably restrained, by apprehension of being abandoned, from speaking the truth.

Next morning, I found him much in the same state as the preceding night, only that he seemed disposed to be comatous. The assistants told me he had vomited much bile in the night, by which he seemed to be relieved, and, the inclination to doze, they considered as a good sign. One of them, whom I desired to examine the left arm-pit, declared, if there had ever been any swelling there, it was now gone: he likewise searched the groins, and pronounced them equally free. Though I gave little credit to the first part of this report, I deferred satisfying myself till the evening, and then found the axillary bubo increased to the size of a pigeon's egg, hard, less moveable, but the skin, as before, not discoloured. It was now become painful when touched, though the patient was rather less sensible than in the morning. The vomiting and looseness had been very moderate, and, in other respects, matters remained in the same state as before.

On the 5th, I did not see him. The bubo, I was told, remained as yesterday. The inquietude, &c. increased, and he died at night.

Two

A P P E N D I X.

iii

Two or three Turks, one of whom was suspected to have pestilential eruptions on his body, had lodged at Abfey's khane, for some days, about the middle of May, on their way to Diarbeck, from Damascus; and from them it was supposed the porters had received the infection.

CHAP.

I.

1760.

May.

It should be remarked, that these three patients, were attended constantly, in turn, by four other Armenians, all of whom escaped the infection.

The discovery of the tumour confirmed my former suspicions. But as I had never before had occasion to see the plague, and was aware of the alarm my declaration of the distemper would cause in the city, I thought it more prudent to wait till next day, when the re-examination of the axilla, would probably enable me to judge with more certainty. On the morning of the 3d day, several people of the khane, led by curiosity, had followed me up stairs and crowded about the door of the chamber, which obstructing the only access for fresh air, rendered the air within close and stifling. The examination of the other patient having already taken up some time, I thought it needless to satisfy myself about the bubo, at the risk of protracting my stay in the small, infected chamber. In the evening, I ordered the patient to be immediately uncovered, and having satisfied myself, soon retired.

C A S E III.

A youth, about twenty, of a sanguine habit, the son of a Jewish seraf, or banker, on the thirteenth of June, was suddenly taken ill with a giddiness, a shivering cold, and a nausea, whilst employed in his shop in the *Bazar*. Upon being brought home, he was seized with a vomiting, which continued with little interval throughout the night. A strong fever succeeded to the shivering fit, and, soon after midnight, he became delirious. A large quantity of blood was taken from the arm.

June.

I visited him at noon, on the 2d day. His pulse was low and quick, his cheeks flushed; the external heat moderately feverish, and nothing remarkable appeared on the tongue. His eyes were a little reddish, and muddy to a degree beyond what I had observed in the last stage of the most malignant fevers. He seemed insensible of any thing that was said to him, but was perpetually shifting his posture in bed, and writhing his limbs, as if extremely disturbed. The vomiting still continued, and he had had several fetid stools, since morning. The women had observed some reddish spots on his arms, early in the morning, but I could now discern no vestiges of them. He had at first vomited bile, but though the retching continued almost incessantly, it was with difficulty any thing came off from the stomach, though, from time to time, they prevailed on him to drink water.

CHAP.

I.

1760.

June.

Fifteen grains of ipecacoanha were given immediately, which brought off a good deal of bile, but the retching continuing as before, throughout the night; the diaphoretic medicines,¹ that had been ordered, did not remain on the stomach. He had several loose stools. By the accounts of his attendants, he had shown some disposition, more than once in the night, to sweat, which they conceived was checked by his perpetual changing posture, and throwing off the bed-clothes. He became more composed towards morning, seemed more sensible, and talked a little; but in less than an hour relapsed into his former state.

At noon, on the 3d, I found his pulse sunk, and his hands and arms cold and clammy. In other respects he remained as yesterday. The women had searched him without discovering any eruptions, but in searching with my own hands, I found a small, hard, incipient bubo, in the right axilla, near the edge of the pectoral muscle. In touching the left axilla, he seemed also to shrink, but I could perceive no swelling, and he was so restless, that what I mistook for a sense of pain, might have been no more than an accidental movement of his arm.

He was greatly exhausted by the incessant retching, from which, however, he was relieved in the afternoon, soon after taking the antiemetic mixture,² and the application of sinapisms to the feet. Towards evening he became manifestly worse. The anxiety and inquietude increased, accompanied with sudden changes of countenance, the face being sometimes flushed, at other times pale, and cadaverous. He expired about midnight.

One or two of the diaphoretic draughts, which had been taken in the evening, remained on the stomach.

This accident happening before the Europeans had retired, or shut up, much pains were employed to conceal its being pestilential. It was industriously given out, that the man who washed the corpse, had declared to the kahan, or high priest, upon oath, that there were no external marks of infection visible on the body. But this was not true; for it afterwards came to my knowledge, that he had several large purple spots on the thighs, which, by the Jews, are considered as pestilential marks.

The patient lay in a small, but clean chamber, with a low ceiling, and was well attended by three women, besides his mother, who were almost constantly sitting on, or near the bed. None of them caught the infection; but an elder brother of the deceased was seized with the plague on Tuesday the twenty-fourth, and died the Friday following: upon which the family abandoned the house.

¹ Described before, p. 155. ² The alkaline salt and lemon juice in the act of effervescence.

The grave digger, who had been employed in burying the first youth, was taken ill, on his return from the funeral, and died on Friday the twentieth, having communicated the infection to his brother, from whom it passed successively to four other persons in the family.

CHAP.

I.

1760.

June.

July.

C A S E IV.

A widow lady, about forty, of a delicate, thin habit, and the mother of several children, found herself indisposed on the twelfth of July, in the evening, and observed one of the glands of her neck a little swelled. Next morning, she was pretty well, but, in the evening, became hot and feverish, and the swelling increased. On the 3d day she was bled.

I saw her the 6th day, in the morning. Her eyes had not the muddy appearance, so remarkable in the plague, but her countenance was strangely altered. The forehead was streaked with purplish red, and her cheeks flushed, and were pale, by turns. The pulse was moderately full, but exceedingly quick; the skin felt hot and burning; and the tongue was whitish, not parched. She complained of head-ach, and of pain at the heart. Her thirst was moderate; she had a constant loathing, but had not vomited. She had retained her senses from the beginning, and gave me a distinct account of what had passed, adding, despondently, that she was sure she must die. The parotid of the right side, was enlarged to the size of a hen's egg, and two of the cervical glands also were considerably swelled. These tumours were hard, painful, and slightly inflamed in the middle.

The exacerbation, on the night of the 6th, had been violent. She vomited frequently, and had a stool, for the first time in five days. Her condition on the 7th, was much the same as yesterday. The 8th, she appeared to be worse. The tumours were enlarged, but had made no approach to maturation. The 9th, I saw her not, but was informed she remained in the same state. She had hitherto taken the diaphoretic mixture, and acidulated cordials, but from this time (I believe) took no medicine. She died the 11th day of the disease.

C A S E V.

The daughter of the lady, (Case IV) a sprightly, healthy girl, eight years of age, was taken ill at the same time with her mother. I saw her on the 6th day, for the first time. Her eyes were a little muddy, her face pale; but there was little alteration in her tongue. The pulse was low, and exceedingly quick. The external heat was considerable, but, by the nurse's account, she was then less feverish than the preceding day. She had a bubo, situated unusually high, in the right axilla, about the size of a green walnut, hard,

CHAP. I.
 1760.
 July.
 hard, and painful, but without external inflammation. On each arm were two pustules (the size of a ripe small-pock) which had been protruded on the 4th day. These, at top, were covered with a brownish crust, from beneath which oozed a thin ichorous matter. The skin round them, was not so intensely red as I had before observed in carbuncles. Besides these eruptions, one less common, was situated in the left arm, above the usual place of opening issues. This was a hard, painful, glandular-like swelling, larger than a hazel nut, and deep seated under the skin, which was neither tense, nor inflamed.

Circumstances prevented my seeing this girl after the 9th day. The axillary bubo opened in the third week, and she recovered very well.

An old woman, who attended constantly on this girl and her mother, was not infected.

C A S E VI.

August. A Turkish young man, an inhabitant of the suburb *Masbirka* was, on the second of August, seized suddenly with a shooting pain in the right groin. He soon after found himself feverish, and complained of nausea, and, at times, had an inclination to vomit.

I found him, on the 4th day, in appearance slightly indisposed. The pulse and external heat were moderately feverish; the tongue was not discoloured, or parched, and his eyes retained their healthy clearness. His principal complaint was the pain of the bubo, and difficulty in walking, caused by the contraction of the thigh. The bubo, on examination, was found in the usual place, near the crural vessels, very hard, not moveable, and though not inflamed externally, nor very protuberant, the skin appeared tense, and he could not bear the slightest touch, without complaining.

I saw this patient once only, and from the forward state of the bubo, as well as the seeming slowness of the attack, imagined he would recover. But I happened to be out in my conjecture; for he died on the night following, being the 5th day of the disease.

C A S E VII.

A Jewish rabbi, between thirty and forty, and of a thin spare, habit, had been taken suddenly ill in the afternoon of the 1st of August. The people about him could give but an indistinct account of his first complaints, further than that he soon became feverish, and, in the evening, losing the use of

of his tongue, he remained speechless all that night, and the day following. On the 2d day he was bled, and in the afternoon, a bubo was discovered in the left axilla. CHAP. I.

1760.
August.

I saw him the morning of the 3d day. His eyes were muddy, and his countenance dejected; the pulse low and quick; the external heat moderately feverish, and his tongue moist. He had often vomited yesterday, and again this morning; but was now composed, and had recovered the use of his tongue. Though speechless yesterday, he had not been altogether insensible to what passed, but recollected indistinctly. He now made the usual complaint of pain, or oppression about the præcordia.

The bubo was nearly as large as a pigeon's egg, hard, and exceedingly painful when touched, but the skin retained its natural colour. There were a few *petechiæ* on the neck, of a pale red colour. He had been costive from the beginning. He expired early next morning.

Of several females who closely attended this patient, all escaped the infection, his wife excepted. She was taken ill about eight days after her husband's death; had a bubo in the groin, which came to suppuration, and she recovered.

C A S E VIII.

An Arab, an elderly man, on the twenty-ninth of March, was seized with a shivering fit, and a vomiting, to which succeeded a fever that became extremely violent in the night. The fever and vomiting continued all the day following, but abated somewhat in the afternoon, after the eruption of a bubo in the right groin, and he passed the night less unquietly than the night before. 1761. March.

I found him, the morning of the 3d, in appearance lethargic, and senseless; though when I spoke loud in his ear, he answered my questions sensibly, but immediately relapsed into dozing. I was prevented, by his situation in bed, from distinctly discovering his eyes; his tongue was white, the heat of his skin was little above natural, and his thirst very moderate. The pulse was sunk, quick, but regular. The bubo lay obliquely near the crural vessels; it was of the shape of a cucumber, not larger than half the length of the thumb. It was very hard, and painful, though the skin was not inflamed. He expired in the night.

His wife acquainted me, that she suspected he had contracted his illness in a *Keisaria*, in the neighbourhood, which he used to frequent, and where several persons still lay sick of a like distemper. This information

con-

CHAP. confirming what I had heard before, I fet out for the *Keisaria*, which was
 I. situated under the caſtle, at a little diſtance from the horſe market. It was
 inhabited chiefly by Arabs, who conſtantly reſided there with their families,
 1761. and got their livelihood, as daily labourers, under the maſons, terrace-
 March. makers, and white-waſhers.

On my arrival at this place, I endeavoured, from the ſurviving inhabitants, to collect information relative to reports that had been brought me before. The reſult of what I learned was, that of above forty who had been ſeized with the diſtemper, after the nineteenth, or twentieth of March, not one had recovered, except a girl about fourteen, whom I found with an axillary bubo tending to maturation; all the others had perished, after an illneſs of three or four days: ſome without any external marks on the body, but moſt of them with ſwellings in the thighs, about the throat, or behind the ears.

C A S E IX.

The firſt patient I examined, in this *Keisaria*, was an Arab woman, about thirty, who had been taken ill on the twenty-eighth, with a vomiting, and a ſhivering fit, ſucceeded by a fever, as in Caſe VIII.

April. I ſaw her early on the morning of the 4th day. Her eyes were muddy, and her countenance much confuſed; her tongue was ſomewhat dry, and retained its natural colour in the middle, but there was a ſmall, white ſtreak, on each ſide; the external heat was moderately feveriſh; her pulſe was ſo extremely ſunk, that it was hardly perceptible, in either wrift. She had ſuffered much the two firſt days, from vomiting, which had now ceaſed; but ſhe complained of weight, or pain about the pit of the ſtomach, and ſeemed very unquiet. I was told ſhe had a bubo in the groin; but as the women reſuſed to remove her ſhift, I did not inſpect it myſelf. One of them, who touched it, ſaid it was very hard, and the patient ſeemed to complain when it was handled. She died the fixth day.

C A S E X.

On the ſame bed with the woman (Caſe IX) lay her ſon, a boy of eight or ten years old, who (I think) had been taken ill the day after the mother. This, therefore, was the 3d of the diſeaſe. His eyes had ſuffered little or no change; the tongue was like that of the mother; the face was ſluſhed; and the ſkin, externally, was hot. The pulſe was quick and low, but equal. He complained of ſtrong head ach; vomited frequently; and, in the intervals, ſhewed much diſpoſition to ſlumber. He had a bubo in each thigh, near the crural veſſels; that of the right ſide being the largeſt, more painful,
 and

and the skin, though not inflamed, seemed to be somewhat discoloured. Both tumours were hard, and pretty large, but notwithstanding a considerable protrusion of the skin, it felt rather puffy than tense, to the touch.

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April.

I received no certain information of the event of this case.

C A S E XI.

A Jewish boy, between seven and eight years old, of a pale, unhealthy complexion, was, on the tenth, taken with a vomiting, head-ach, and fever. Next day he complained of pain in both groins, and the mother, upon inspecting the parts, discovered two swellings. The subsequent exacerbations of fever, had, by her account, been considerable.

I saw him on the 7th day. His eyes and tongue showed nothing remarkable; the heat of the skin was temperate, and the pulse slightly feverish. Though the boy looked unwell, it was rather the squalid look of the children of the poor of this nation, when labouring under chronic complaints, than any appearance that could, in pestilential times, raise alarm, and I should have had no suspicion, if the mother, after two days, had not confessed the discovery of the swellings, which hitherto had been carefully concealed from me.

Upon examination the 9th day, I found a bubo in each thigh, near the crural vessels. Both were considerably protruded, but the skin was puffy, and not inflamed. Upon first touching the tumours, they appeared to me soft, a deception arising from the intermediate skin, for when more carefully examined, the glands, which were deeply seated, were found hard: though I think less so, than the buboes generally are in a more inflammatory state.

Suppurative cataplasms had been applied, but without effect. He was repeatedly purged, and, the tumours gradually dispersing, he recovered slowly.

C A S E XII.

A Jewish lad, about fourteen, on the second of May, felt a pain in both groins, soon after having leaped down a stair, in play with some other boys. He was a healthy, florid youth; and either was sensible of no other indisposition, besides the pain in the groins, or concealed it, that he might not be disappointed in going next day, on a party to the gardens. Next evening he returned from the gardens, with a fever and head-ach, and the mother, remarking as he undrest, that he moved one arm as if in pain, he told her his arm had been twisted by one of his companions, and that it was sore under the arm-pit. The fever increased considerably in the night.

May.

b

When

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I.

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May.

When I visited him in the morning of the 3d day, I found his eyes beginning to be muddy; the tongue whitish; the pulse quick, and rather full; and the feverish heat moderate. He complained of head-ach, and giddinets, but showed no disposition to vomit.

Having heard the account of the two first days, I suspected the circumstance of the leap to be a fiction of the boy, in order to avoid the imputation of having a distemper which, among the Jews, always occasions much alarm. I therefore ordered him to be immediately stripped naked, that I might examine the parts free from the incumbrance of the clothes in which the natives sleep, and in handling which, there is, perhaps, more danger, than in touching the bodies of the infected.

Low in the left axilla, towards the edge of the pectoral muscle, there was a hard, moveable bubo, the size of a hazel nut, not discoloured, but very painful, when touched. In the groin of the same side there were three small, enlarged glands, one properly in the groin, about half the size of that in the axilla, the other two lay near the crural vessels. All of them were painful to the touch, but the skin retained its natural colour.

The patient had been scarified in the legs, early in the morning, but, the quantity of blood lost in that way being very inconsiderable, I ordered him to be bled in the arm, and waited till the operation was performed. The blood appeared of a darkish colour, at first, but the patient growing faint, little more than a small cup-ful was taken away. Being examined at the distance of two hours, the crassamentum was found of a soft, loose texture, and its surface blackish; but the quantity of serum was not more than is usually separated in the same time.

After the bleeding, he took fifteen grains of ipecacoanha, which operated twice, but brought off no bile. Draughts with the spirit mindereri were ordered. In the evening, the pain in the axilla decreased, while that of the groin increased. He was hot, thirsty, and restless all night.

The morning of the 4th, the eyes remained as yesterday; the tongue had become yellowish; the face was somewhat flushed, but the pulse was less feverish. I found the axillary bubo decreased, and, as the boy said, not painful; the inguinal, on the contrary, was increased to the size of a pigeon's egg, and very painful: the indurated glands near the crural vessels, had disappeared. The usual diaphoretic mixture was ordered, instead of the spirit mindereri, and he took frequently of an acidulated, simple cordial. The fever increased in the evening, and he was delirious most part of the night.

On the 5th, in the morning, I found the fever moderate; the patient's condition, in other respects, was the same as yesterday. The inguinal bubo rather

rather larger, that in the axilla almost gone. He had all along, after the first day, denied the having any pain in the right groin, but upon examination this day, two small, hard, painful swellings were found there. Towards noon, the fever increased, but declined somewhat, after a short sweat, and a copious stool, in which several worms were discharged. A much more severe exacerbation came on in the evening, and continued till noon, next day. He remained in constant delirium, and often attempted to get out of bed. The diaphoretic medicines were taken pretty regularly four or five times a day : and poultices were applied to the buboes.

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I found him, near noon, on the 6th, rambling, and talking incoherently, but, when spoken to, he seemed to recollect himself. The pulse was in a state almost natural, and the heat of the skin temperate. The tumours remained as yesterday, but the bubo of the right groin was become so painful, that the patient could not bear the thigh to be moved. The exacerbation of the fever, with delirium, inquietude, &c. returning in the evening, sinapisms were again applied to the feet.

The forenoon of the 7th, his eyes were more muddy than ever ; the pulse sunk ; he talked less in his delirium, and seemed more inclined to doze. The tongue had recovered its natural colour, and the urine was like that of one in health. The buboes of both groins were decreased in size, but remained painful as before. About noon, he sweated copiously, and was remarkably better for some hours after ; but, the exacerbation returning, he was, as usual, delirious all night. The sinapisms were repeated, and spirit-mindereri joined to his mixture.

I saw him not on the 8th, but was informed he remained much in the same way as yesterday, only that he had not sweated at noon. Having had no passage since the 5th, the women applied a suppository, which procured two small, black stools, very fetid.—In any other disorder a glyster, or a laxative medicine would have been admitted : but here, popular prejudice was too strong against both. The delirium, at night, ran high, the patient was extremely uneasy, and talked incessantly, but from the tremulous affection of his tongue, what he said was unintelligible to those about him. The sinapisms had been ordered, but were not applied, the women conceiving him in too desperate a state for any remedy.

His eyes, on the 9th, were more muddy than on the 7th ; his tongue somewhat dry, and yellowish in the middle ; the pulse low, but in other respects natural ; and the skin was temperately hot. He lay half comatous, and articulated with difficulty, when roused. The buboes continued painful, but were certainly decreased in size. He had for these two days, passed

CHAP. his urine insensibly ; a little that had been preserved this morning, was of a
 I. natural colour, and had a small cloud suspended in it. In the evening's
 1761. exacerbation, he began to rave as usual, but an hour after the sinapisms had
 May. been applied, he complained of the pain they occasioned, and became more
 composed.

The 10th day, having sweated early in the morning, he was relieved, and continued much better (as his attendants thought) all the forenoon. I found his pulse, however, sunk, and much quicker than for some days past, and his countenance altered for the worse. He was rather more sensible than yesterday, and his tongue less impeded ; but he suffered at times from a hiccough. The buboes gave him pain when his limbs were moved, but otherwise he made no complaint. The evening exacerbation came on, attended by the usual train of symptoms, but was of shorter duration : a sweat broke out before midnight, and he continued sweating profusely till morning.

The 11th I saw him not ; but was informed he was extremely low and exhausted, after the sweat, and had passed a very unquiet day : and further (which had greatly alarmed the women) that he had had three stools in the afternoon, consisting merely of black blood. I ordered some tincture of bark to be added to his usual mixture.

The 12th he had passed a less unquiet night than usual. His eyes were less muddy, and his looks every way mended. The pulse, though feverish, was more raised, and not so quick as on the 10th. The appearance of the urine remained the same as before. The left bubo was enlarged, and more painful, but was not yet inflamed, externally. The largest of the three stools of yesterday had been kept for my inspection. It consisted of about three cupfuls of black-coloured blood, without any mixture or fœtor. The other two were of the same kind, but inconsiderably small.

The women, on shifting his clothes yesterday, discovered an eruption on the left side, under the false ribs, which had hitherto escaped their notice, and of which the boy had never complained. This I found to be a carbuncle, of the size of a shilling, with an eschar in the middle, half as large, and its outer edge of a dusky, red colour. The eschar was dry, and showed no signs of separation. This eruption was dressed in the ordinary way ; and gum plasters, for the buboes, were ordered instead of the cataplasms. He had another tolerably good night.

I found him, on the 13th, clearer, and more composed than yesterday. He was still feverish, but his skin moist. His urine was higher coloured ; other circumstances as before. I wished to have purged him, at this time, but, from dread of a diarrhœa, the mother would consent only to a suppository,

tory, by which one small stool was procured. The 14th, he was rather more feverish than yesterday, and his tongue dry, but his eyes were clearer, and the urine was turbid. Upon urging the expediency of cleansing the bowels, I at length prevailed, and a purging potion was ordered to be taken next day. The bubo had decreased in size. He slept some hours in the night.

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The 15th, I found him still feverish; but his pulse was mended; his tongue had become moist, and he looked, as well as found himself, better. The eschar of the carbuncle cast off; but the swellings on the thighs, though painful, seemed to have decreased. The potion operated five times. He took an opiate at bed-time to compose him, which had its effect, and tincture of bark, with elixir of vitriol, was ordered twice a day.

The 16th, he was entirely free from fever, but more sensible than ever of loss of strength. The left bubo was enlarged; the other more painful.

The 18th, recovering. He has had two stools daily since the purge. The left bubo, soft, reddish, and tending to maturation; the right still hard.

The 22d, had continued very well till last night, when he became feverish; but the left bubo opening of itself, this morning, the fever immediately disappeared. The carbuncle was almost healed. The purging potion was repeated on the 24th, and the bubo, in the right groin, opened in the first week of June.

This boy was most affectionately attended by his mother, who was very attentive, and gave a more distinct account of what passed in the course of the disease, than could usually be procured from attendants on the sick.

Two other women, with a girl of seven or eight years old, were often in the chamber, and during the two or three first days of his sickness, he had been visited by more than a dozen of women; but none of them, so far as I could learn, were afterwards infected.

C A S E XIII.

A Jew, of a thin, spare habit, the servant of a distiller of spirits, on the seventh of May, at noon, observed a small angry pustule upon his right leg. In the afternoon, he had a slight shivering fit, followed by head-ach, and towards evening he was bled in the arm. He bore the bleeding very well, but, before leaving the barber's shop, he, of a sudden, found himself so much disordered (not faint) that he was in doubt whether he should be able to walk to his own house. In the night he was very feverish, and, I think,

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think, vomited. The 2d day, the pustule had spread and was very painful; he was sensible also of pain in the right groin. He vomited several times in the night, but on the whole, was less unquiet than the first night. The 3d, the vomiting became more frequent; and he had several loose stools. In the night he was highly feverish, had intense thirst, but could retain nothing on the stomach.

I visited him at noon, on the 4th day, and received the above account. I found his eyes muddy, and a little inflamed; the face flushed; the tongue whitish near the roof, otherwise moist and unaltered; the pulse soft, equal, and not very quick; and the heat externally, moderate. He was perpetually changing posture; desponded of recovery, but made no other complaint than of the pain of the eruptions. Whilst I was yet in the chamber, he rose up from bed and went towards the door, in quest, as he said, of fresh air, but was soon prevailed on to lye down again; and though he had at this time something peculiarly wild, and frantic in his look, yet he answered distinctly to the questions I put to him.

The carbuncle was on the external part of the tibia; a little lower than the middle of the leg. It was larger than a shilling in circumference, a black eschar was formed in the centre, round which, the cuticle being raised unequally, seemed to contain a dusky, yellow matter; but the skin round the base of the eruption, though swelled and tense, was not red, the redness only beginning where the carbuncle began to be protuberant. The bubo was seated near the crural vessels; of an oblong shape, as large as a walnut, hard, and very painful; but the skin retained its natural colour. The vomiting and looseness still continued.

This man died on the night of the 6th day. He took no medicine whatever.

C A S E XIV.

The wife of the Jew (Case XIII) a woman of a delicate frame, and six months gone with child, was seized with violent head-ach, and other feverish symptoms, on the eighth, at night, the day after her husband. She was bled the day following, and a bubo appeared in the right axilla. She passed that night very unquietly, and frequently vomited.

I found her, on the 3d, in the same chamber with her husband. Her eyes were muddy, but not inflamed; her countenance confused, and dejected. The tongue whitish near the root, and dry; the skin hot; and the pulse quick, and fluttering. Her chief complaints were oppression

at

at the heart, and violent pain in the forehead; she continued to vomit frequently, but had had no stool since the 1st day. The bubo in the axilla was less than a pigeon's egg, hard, and I think, immovable; the skin was not inflamed, but considerably protruded. The tumour, when she moved the arm, was exceedingly painful. She died the 6th day, in the morning, having brought forth a child when in the agonies of death.

CHAP.

I.

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May.

These poor wretches, inhabited an old ruinous house, several steps lower than the level of the street. I directed proper drinks, and desired they might send for medicines; but heard no more of them till after they were buried. The rest of the family consisted of three children, the man's father, the mother of the wife, and another elderly woman. The two women had constantly attended the sick, but escaped infection; as well as the man and two of the children: the third was infected, and died ten days after the mother. This was one of those miserable dwellings which, from the want of ventilation, the sordid beds, and neglect of cleanliness, I always considered as dangerous receptacles of contagion. The escape of these people, therefore, happened contrary to my expectation.

C A S E XV.

A youth of a delicate constitution, a French native of Aleppo, complained on the thirteenth of May, of head-ach, he soon became feverish, and was hot and restless in the night. A medical gentleman, who saw him next morning, finding the fever continue, and that he complained of a fulness, and pain in the throat, bled him copiously, and ordered a laxative glyster, which operated two or three times. The throat became easier after the bleeding, but about noon, a small, painful, yellowish pustule was observed on the hind part of the neck. Towards evening the fever increased, and in the night he was at times delirious; but in the morning he grew more composed, and had a stool. His case had not hitherto been thought pestilential, but the eruption on the neck, and his unexpected illness in the night, had raised some suspicions, and the father entreated me to call in the course of my visits.

I saw him the morning of the 3d day. His eyes were somewhat muddy, and his countenance much confused; the tongue whitish, not dry; the pulse quick, and moderately full. Upon first touching the skin, the external heat seemed little more than natural, but when the hand remained a little, the heat felt burning, and intense. The carbuncle on the neck, which had passed for an ordinary, inflammatory eruption, was now enlarged to the size of a shilling, protuberant, gradually, from the base, growing of a deeper red, and,

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I.

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May.

and, at the top, the skin, which was a little wrinkled, seemed to confine a yellowish matter. The skin round the tumour was slightly inflamed. Near this carbuncle, was a small pustule resembling a pock, on the second day of eruption, the skin round which was of a deep red. The father came to acquaint me, in the evening, that a small red spot had appeared on the cheek. I declared the disorder to be the plague, and advised the family to proceed accordingly. The gentleman who attended him was of a different opinion, ordered some nitrous medicine to be taken at night, and a galbanum plaster to be laid on the tumour, but this application giving much pain, was, by the women, changed for a common poultice. Pigeons were applied to the feet.

The eyes were less muddy the morning of the 4th, but the countenance still confused and dejected; the tongue as before; the external heat less ardent; the pulse lower and quicker than yesterday. He had entirely recovered his senses. The carbuncle was increased to the size of a small walnut, the top, as before, without any appearance of gangrene, but the skin round the tumour was of a deeper red. The pustule in the same state as yesterday. Two flattish, small, yellow pustules, round which the skin was of the colour of a recent flea bite, were now visible on the left cheek. At their first appearance, last night, they looked like red spots, not elevated above the skin. I had yesterday advised the examining the thighs and arm-pits, which I was informed had been done, but as no swellings were found there, it was concluded I was mistaken in the disease. The boy, at this time, was quite sensible, and persisted, as he had done all along, that he felt no pain, except from the tumour on the neck. Though buboes were not, in this case, necessary to confirm me in my opinion, I was led by curiosity to search the patient myself, and without much surprize, found a bubo in the left thigh. It lay near the crural vessels, was of the size of an almond, hard, deep seated, and so painful that he complained on the slightest touch.

The glands in the groin were a little swelled. He then acknowledged that he had felt pain in that place from the first day at noon, but was afraid to mention it lest people should say he had the plague. The gentleman who had hitherto treated him, having no remaining doubts, declined further attendance.

About noon the patient vomited two or three times, and discharged some bile, after which the fever increasing, he lost the use of his tongue, became delirious, and extremely restless. A diaphoretic medicine was ordered, and his drinks were acidulated with spirit of vitriol. He became still worse, about nine at night, when he first took the medicine;
and

and growing worse and worse, sinapisms were applied to the feet, about eleven, but with little or no alleviation of the symptoms. Towards morning he became less restless, but recovered his senses only partially, and seemed much disposed to slumber. He showed very little desire to drink.

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I.
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The morning of the 5th, at ten o'clock, I found him as sensible as yesterday; his tongue white; his pulse, as well as the external heat, slightly feverish. The face was strangely disfigured by the eruptions. The two carbuncles on the right cheek were enlarged, and the eye on that side almost hid by the swelling of the skin. Besides these, four others had been protruded in the exacerbation of last night; one on the left side of the face, one near the corner of the mouth, one on the chin, and one on the neck. All which, together with the small pustule mentioned on the 3d, were now become black at the top, and surrounded by circles of a deep red colour. The first carbuncle had spread, and seemed disposed to grow black like the others. In the evening, a new carbuncle was discovered on the crown of the head, and two pustules (represented to me as different from the others) on the right ankle, with one of the same kind on the thigh. His arms, through the day, had been several times affected with convulsive startings different from the ordinary *subfultus tendinum*, being much more violent, and returning at longer intervals. The evening exacerbation was less severe, but cataplasms of garlic were applied to the feet, early in the night, by way of prevention. The night was, on the whole, better than the preceding; he rambled, and, at times, was comatous; but he was, at intervals, more sensible, and did not lose the use of his tongue. After midnight, he had two copious black stools, not very fetid, and two others of a bilious colour in the morning.

On the 6th, I found the skin moderately hot; and, the whiteness being gone, the tongue looked moister, and better: but the pulse was sunk, and extremely quick. He spoke with difficulty, owing to the swelling of the cheeks, and lips, but was tolerably composed, and entirely sensible. The bubo remained as before. The first carbuncle was now, like the rest, black in the middle, and the eschar-like crust, in all of them, remained dry, without any signs of suppuration. The circles round the eruptions on the face, were become of a darker red.

The pustules on the ankle, had suffered no alteration since their eruption last night. These were small blains, about the size of a horse bean, the skin round them being of a deep red, but not shining, nor so hard as usual in carbuncles. They contained a fluid of a dark, yellowish colour, with which, not being filled, they appeared flat, or dimpled on the top. The

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I.

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May.

pustules on the face, differed from these in several respects. Those were at first, red, hard tubercles, the cuticle on the top being shrivelled, and forming a yellowish crust; these appeared, at first, like vesicles, without any visible hard tubercle, and, from their not bursting when touched with the finger, the cuticle seemed to be tougher. But from what happened next day, this difference was, perhaps, merely owing to local circumstances, to the eruptions on the face being more exposed to friction, and the cuticle being tenderer. I neglected to examine the pustule on the thigh, but was assured it was exactly of the same kind. The pustule which at first resembled a small-pock (and which I imagined to be what was termed at Marseilles, *Pustule Charbonneuse*) was now grown black, and could not be distinguished from the other carbuncles.

The patient appeared to be greatly weakened, by the stools; and, nauseating the rice gruel, and panada, with which he had been hitherto nourished, was permitted to have chicken broth. A cordial with some diascordium was also ordered, of which some spoonfuls were to be taken after every stool. Had a stool at two o'clock, and became much worse.

The cataplasms were applied at five in the afternoon, and lay on two hours. The diaphoretic mixture had been taken pretty regularly. The febrile symptoms, in the exacerbation, run not so high as usual; but the inquietude increased, he was perpetually changing posture, and made some feeble efforts to get out of bed. The carbuncle on the ankle became black, and the skin round all the eruptions, presented broad livid circles. Deglutition was impeded by the swelling of the throat. In this state he remained all night and seemed wholly insensible.

On the morning of the 7th, his strength being exhausted, he moved with less violence, but was not more composed: writhing incessantly, as if in mortal inquietude, he lingered till nine o'clock, and then expired. The livid circles round the carbuncles (as I was informed) became remarkably pale after death. The bubo never advanced.

This young man was constantly attended and nursed, by his grandmother, one or two old women, a man, and an Armenian boy, all of whom escaped the infection: a circumstance which, considering the unusual number of eruptions, I thought the more remarkable.

C A S E XVI.

A Jewish girl, eight or nine years old, of a delicate frame, and sprightly disposition, on the fourteenth of May, became feverish, and, at the same time,

time, a small yellowish pustule was observed on the cheek. The fever increasing in the evening, she passed a very restless night. Next morning she appeared to be much better, and walked about till noon, when she became heavy and feverish, passing a more unquiet night than the preceding, and was at times delirious. On the 3d she remained tolerably composed from morning till noon, when a severe exacerbation came on, and in the night she was worse than ever.

I saw her the 4th day, about noon. Her eyes were less altered than I expected; the tongue white and moist; the pulse low, quick, and fluttering. The girl was in tears, occasioned, as she told me, by the pain she suffered from the sore on the cheek; for, though quite sensible, she made no other complaint. Close to the left corner of the mouth, was a carbuncle of a shape unusually irregular, being oblong, near an inch in length, and not more than the third of an inch in breadth. The end, next the mouth, was covered with a black shrivelled crust, the other part was still yellowish. The tumour was not much raised above the surface, but the skin round it was a good deal swelled, and of a dark, shining red. The maxillary glands, on both sides were much swelled. Besides this carbuncle, the face was strangely disfigured, by three or four streaks of a pale red colour, shooting up on each side, from the cheeks toward the temples. Upon my asking whether she felt pain any where else, than the face, she pointed first to the arm-pit, and then to the groin, on the left side, but I could discover no swelling there, nor did she shrink upon touching the parts. I suspected the women had searched her roughly, before I came, and by that means raised pain where there were no swellings; which I found afterwards had really been the case. She had neither vomited at first, nor had she now any nausea; she had had one stool yesterday. No blood had been taken away, and it appeared, to me too late, as well as not requisite, to bleed in her present situation.

The usual regimen, and medicines were ordered, but she seldom took the latter, an acidulated cordial excepted. I saw her not myself from this day till the 9th, but accounts were brought me daily, by those who nursed her.

She had been extremely restless in the night of the 4th, and, through the whole of the next day, hardly remained an hour together in the same state, being by turns calm, restless, drowsy, delirious, and sensible. Had three bilious stools in the day, and two more in the night, which was not less restless than the night before.

On the 6th, she remained in the same state, and had two stools. I advised some rhubarb, but it was not given. The gangrene of the carbuncle

spread,

CHAP. spread, and the face and maxillary glands were more swelled. A bad
I. night.

1761.

May.

On the 7th, the gangrene of the cheek spreading, I would have given the bark, but she could not be prevailed on to swallow any internal medicine. The ol. palmæ had been ordered for the carbuncle, and, thinking it gave her ease, she often desired the application to be renewed. She was unquiet, and delirious in the night, and had two stools.

On the 8th, she was, as the assistants thought, much better, and continued more composed and sensible all day. She several times expressed wonder why her mother and relations had left her, and why I had not visited her, as I had done in a former illness, of which she reminded the assistants. In the evening, the exacerbation was severer, and she was so ill in the night that the nurses gave her over.

Passing near the door, on the 9th, in the course of my visits, I desired to see her, and a male servant brought her out in his arms. She was totally insensible. The gangrene, extending towards the nose, and the cheek, had now spread above three inches, where broadest, the skin, round the eschar-like crust, was of a shining red, but the rest of the face was pale. The eyelids were puffed up to such a degree, that the eyes could hardly be discerned. The maxillary glands were much swelled, but the skin not inflamed. She had taken no medicine, except sometimes a spoonful of an acidulated cordial; and she took little or no sustenance.

On the 10th, she had had several stools since yesterday, and discharged worms.—In the night she was disturbed as usual, but instead of becoming more composed towards morning, she grew worse and worse, and after struggling several hours in the agonies of death, she expired in the evening.

The family entertained some apprehensions on the morning of the 4th day, but had flattered themselves with the hopes of the disease not being the plague, till my first visit, when I advised them to consult their own safety. The family consisted, on the whole, of twelve or fourteen persons, including four or five other children, most of whom had frequented the chamber, and communicated with the sick girl, during the three first days. She had also been constantly nursed by one woman, and two men, but all escaped the infection.

I regretted much, in a case where the stomach was so favourably disposed, the not having tried the bark, and purgatives, which I certainly should have done with a less untractable patient; and from the protraction of the disease, I was disposed to think it one of those cases, wherein a more active treatment might have proved of service.

CASE

C A S E XVII.

CHAP.

I.

1761.

May.

A stout, healthy Armenian youth, about twenty, took to one of the English gentlemen, upon his return from purchasing provisions in the *bazar*, on the morning of the twenty-sixth, was taken with a cold shivering fit, and a vomiting, which he ascribed to the having slept uncovered in the night. The shivering was succeeded by a high fever, and intense head-ach, both which were mitigated by a large bleeding, from the arm. In the afternoon he walked to my house. His eyes were a little red, but not yet muddy; his countenance pale, and confused, the tongue dry, not white; the pulse feverish, though not full: and the skin dry and hot. When first taken ill, he had vomited two or three times, and some degree of nausea still remained. I searched the groins, and the axillæ, but found no swellings. I ordered a scruple of ipecacuanha to be taken immediately, which, operating three or four times, brought off a good deal of bile. An anodyne was given after the operation of the vomit, but it did not compose him, and he was delirious most part of the night. Had one stool.

A person sent early in the morning of the 2d, to see him, found him low, drowsy, and scarcely sensible. No eruptions were discovered on searching. In less than two hours after, I visited him myself. The eyes were become muddy, and the countenance more confused than yesterday; the tongue still dry, but white; the pulse low, and very quick; and the external heat less than the preceding night. He seemed half comatous, but was incessantly changing his posture in bed. Though it required some time to rouse him, he answered sensibly when interrogated. He found himself ill, and restless, but complained of no local pain. Ordering him to be uncovered, I searched for eruptions, and found a bubo in the left thigh, near the crural vessels, the size of a hazel nut, deep seated, moveable, and when touched, painful. This tumour had escaped the person, sent in the morning, who had searched higher in the groin. He had a severe exacerbation, in the evening, in which he vomited several times. Extremely unquiet in the night; was, at times, furiously delirious, and often attempted to get out of bed, but soon desisting, as if spent by the exertion, threw himself down again, in despondence, and muttered unintelligibly.

The morning of the 3d, he was much better in appearance, though he had not sweated. He had, in a great measure, recovered his senses, and complained of oppression about the præcordia; his thirst was considerable, though the fever was moderate. The urine was high coloured. The bubo had decreased in size; and an erysipelatous redness struck out on the belly.

CHAP.

I.

1761.

May.

Word was brought me in the evening, that this redness had gone off, and the bubo was scarcely perceptible; he seemed strangely restless; complained of burning heat, internally, and unquenchable thirst. He raved most part of the night, and had several loose stools. He had taken none of the medicines ordered, except the acidulated cordial, and I learned afterwards, that the women conceiving him past recovery, had indulged him in eating a quantity of cherries, and afterwards permitted him to drink freely of iced water.

On the morning of the 4th, he lay speechless, and insensible; inquietude incessant; and the body, in several places, streaked with *vibices*. The bubo was somewhat larger. Such was the report brought me. He expired about noon.

In several of the preceding cases, I have had occasion to mention the remarkable escape of the attendants, and others of the family, who were much about the infected; in the present case, the spread of the infection was uncommon, only one person of six who dwelt in the same house, escaping an attack.

I. The first who fell sick, in this family, was a girl about seven years old. She was seized the third of June, the fifth day after the death of the cook. The eruptions were a large carbuncle, on the right side, and a bubo in the right axilla. She was neither bled, nor, except the acidulated cordial, took any medicine. The bubo increased to an uncommon size, and opened about the 20th of the month, after which she recovered slowly.

This girl was infected a second time, in the month of October, and died.

June.

II. The next was a girl of seventeen, who was taken ill on the sixth, a bubo appearing in the right axilla. She was bled, and circumstances appeared favourable the two following days. In the evening of the 4th day she grew worse, had an hemorrhage from the nose, and died, next day in the afternoon, being the tenth of June.

When I first visited the cook, on the twenty-seventh of May, I found this blooming girl sitting close by the bed-side, and employed at her needle work, without any suspicion of the danger of her situation. I attempted, in vain, to make her quit the chamber, and, I believe, it was not till next day she was prevailed on to desist from attending the patient.

III. The brother of the last girl, a lad of fifteen, was taken ill the eighth. A bubo was protruded next day, which he concealed for three or four days,

when

when he began to be better. The bubo opened about the 20th day, and he recovered favourably. He had been bled once, but took no medicine.

CHAP.

I.

IV. In the chamber immediately adjoining to that where the cook slept, lay a young woman, recovering from child-bed. She found herself indisposed on the sixth of June, but did not complain till next day. She had a bubo in the groin, and a carbuncle on the ankle. She died the 6th day; and the child the day following; but I do not know whether the child had any external marks of the plague.

1761.

June.

V. The last person infected, was the mother of the above woman. She was taken with a shivering, a fever, and a vomiting, on the thirteenth of June, after having been employed all day in washing linen. Next day a small bubo appeared in the left groin, and a carbuncle on the left leg. She had retched several times, and still complained of nausea. A vomit was ordered and an anodyne draught. The vomit had no effect, and, though the draught was given, she passed a very unquiet night. By the accounts brought me, on the 3d, she was very ill all day. The bubo had increased in size, and was more painful. The evening exacerbation was very severe, and, in the night she grew worse. On the 4th, she remained most part of the day in a state of insensibility. Had one stool. At night she became more unquiet, and expired next morning. This woman had taken the diaphoretic medicines two or three times a day, as also of the acidulated cordial, frequently.

The mother of the girl and boy (II, III) was the only inhabitant of the house, that escaped the infection,

C A S E XVIII.

An Armenian woman, in the seventh month of her first pregnancy, was taken ill in the morning of the thirteenth of June. The mother-in-law had died of the plague two days before, and her husband, who then lay sick, died on the fifteenth. By the accounts I received of this woman, on the 1st day, she had been seized with the usual pestilential symptoms, in the morning, and was bled in the forenoon. The vomiting, which had been slight, had now ceased, and she had no remaining nausea. Diaphoretic boluses, and the usual cordial were ordered. She was feverish, and restless in the night. On the 2d, she complained of pain in her back, and weight in her belly: as likewise of pain in the right thigh, but no bubo was found upon searching. Had two stools. She took two boluses in the course of the day, and a haustus of spirit. mindereri at night. Passed a very unquiet night, and did not sweat towards

CHAP. I. towards morning.—On the 3d, she was delivered of a dead child. She took willingly of the acidulated cordial, but refused all other medicine. Word was brought me in the evening that she found herself much better, and indeed, to the people about her, she appeared to be so: but the calm was deceitful, and of short duration; for she grew rapidly worse in the night, and early next morning expired.

1761.
June.

Her body, after death, was covered with purple marks.

C A S E XIX.

A boy, the brother of the woman's husband (Case XVIII.) was seized on the nineteenth, a bubo appearing immediately in the right groin. He was bled, and took the alexipharmic mixture. He had not vomited, and had no nausea.—On the 2d, a diarrhea coming on, diascordium was added to the mixture, but without effect; for the looseness continued, and he became very hot and restless, particularly in the night.—The morning of the 3d, instead of any remission, he lay in a state, almost, of insensibility. The diarrhea being in no degree restrained by the diascordium, continued. The bubo remained as before. When asked, at intervals, if he felt pain, he said he did not; nor did he make any complaint, though he appeared to be very restless. He died in the night.

The only person in the house, where this boy and the pregnant woman died, who escaped the infection, was an old man, the father of the boy. His wife, and an elder son, had perished before. The wife was taken the eleventh of June, and died the night of the twelfth. The son was taken the twelfth, had an incessant vomiting, and a carbuncle on the hip, which gangrened rapidly, and had spread to a considerable breadth, in the space of three days. He died on the 3d day in the afternoon.

C A S E XX.

July. A Jew, a middle aged man, and of a gross habit of body, observed a small, angry pustule, on his right arm, on the twenty-seventh of July, and, in the night, found himself hot and restless. Next day he was bled, and a hard, painful bubo appeared in the right thigh; he vomited, had several loose stools, and passed the night more unquietly than the night before.—On the 3d and 4th he was irregularly better and worse; now tolerably calm and sensible, now unquiet, and delirious, and some times heavy, and lethargic. He was always much disturbed in the nights. He had taken no medicine after the bleeding.

I received

I received the above account on the 5th day, when he sent to entreat my assistance. He was then sensible, and complained of oppression at the heart, of the pain of the eruptions, and of inquietude, which he could not describe; but at other times he lay as if in a state of sluggish insensibility; he had seldom been delirious. Yesterday petechiae had been observed on several parts of the body, and still remained. Diaphoretic powders, and sinapisms were ordered, though with very little expectation of success. He passed the night in perpetual inquietude.

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I.

1761.

July.

Accounts were brought me on the 6th, that not having grown better, as usual towards morning, he now lay in a state of insensibility, his breathing laborious, the extremities cold, and the whole body covered with a cold, clammy sweat. The petechiae were become of a livid colour. He expired in the afternoon.

The following case, though one of those where I did not see the patient myself, I have transcribed from my journals, at length; having daily received accounts, uncommonly distinct, by means of the patient's sister, who nursed him the whole time with remarkable resolution and tenderness, and, though in the bloom of life, happily escaped the infection.

C A S E XXI.

A Christian youth, about seventeen, was taken suddenly with a vomiting, head ach, and fever, on the twenty-eighth of July; and, in the evening, complained of pain in the right groin, but the person who searched him could discover no swelling there. Was restless, but not delirious, in the night.

The forenoon of the 2d, he was feverish, and very unquiet, though he had been bled copiously in the morning. A cataplasm was directed to be applied to the groin, where no swelling was yet perceptible, though he persisted in complaining of pain. In the evening he took fifteen grains of ipecacuanha, which operated three times, and at night a diaphoretic draught, with a little nitre, and diascordium. He passed a less unquiet night than the preceding, and had one stool.

On the 3d, he did not sweat towards morning, and, though he became somewhat calmer, the fever continued high, accompanied with thirst, and head-ach. The bubo was now very perceptible, being about the size of an olive, and seated near the crural vessels. I suspected, from the constancy of the pain, that a hand more experienced in searching, might have discovered the incipient tumor, on the 2d, if not on the 1st day. A diaphoretic

d

mixture,

CHAP. mixture, with spirit. nitr. d. and a small proportion of nitre, was ordered; and
 I. his drinks directed to be acidulated. In the night he was very unquiet, the
 fever run high, and, at times, he was slightly delirious. Had one stool.

1761.

July.

He was, on the morning of the 4th, more composed than he had been in the night, but still highly feverish, and the urine was of a deep red colour. The bubo was a little increased. He had two stools of a reddish colour like blood, in the afternoon, after which he became in all respects much worse. A carbuncle was discovered on the lower part of the right thigh. A larger proportion of nitre had been added to the medicines this day; but the febrile symptoms running high in the evening exacerbation, his sister of herself, procured a person to cup the patient, and took away three cupfuls of blood; a circumstance she concealed till long after, from a notion that I should have disapproved of taking away blood in that state of the eruptions, and so late in the disease. The night proved an unhappy one to both patient and nurse. He was more disturbed, and seemingly worse than ever; and she was alarmed for the consequence of the step she had unadvisedly taken. He had two loose stools, which appeared to lower him. Towards morning he showed some disposition to sweat, but could not be prevented from throwing off the bed-clothes.

On the 5th, he was rather more composed, but cross and impatient, insisting on being indulged in some very improper food. The nitre was omitted, and an astringent cordial ordered, in case of loose stools in the night. He suffered several irregular exacerbations through the day, and was extremely ill in the night. The diaphoretic medicines were given regularly, but, though he had three loose stools which sunk him greatly, they omitted the astringent mixture, from the dread, as pretended, of overloading the stomach with medicine, but in reality because the looseness, joined to the other symptoms, led them to consider the condition of the patient as desperate; in which case, it is invariably their custom to leave the whole to nature. His sister, however, remembering my injunctions not to be discouraged by appearances, insisted on giving the other medicines, in opposition to the rest of the women; and, what was equally uncommon, candidly confessed not having followed directions.

August.

By the report of his situation on the morning of the 6th, there seemed to be little hopes of recovery. He lay motionless, in a state of insensibility; his breathing quick, laborious, and interrupted; the skin not cold, but the feverish heat gone, and his countenance ghastly. From this lethargic state, the women attempted to rouse him, by applying vinegar to his nostrils, calling him loudly by his name, and such like means, and sometimes succeeded;

but, though he opened his eyes, and gave signs of sense, he could not be prevailed on to drink; and he remained silent. He would then for some time writhe and contort his limbs, as if in mortal agony, and again relapse into lethargy. The eruptions remained as yesterday. Sinapisms were ordered to his feet, but not applied, as he became more alert and sensible in the noon exacerbation, and remained so, though very unquiet, the rest of the evening. He was less disturbed than usual in the night, and had no occasion for the astringent cordial.

He was manifestly better on the 7th. The carbuncle gave signs of suppurating, and the bubo, which hitherto had been hard, began to soften. A reddish streak was observed running from the bubo to the carbuncle. The looseness continuing all day, in a moderate degree, but attended with gripes, the white decoction was substituted for the cordial, and tincture of bark ordered to be taken thrice in the twenty-four hours. The exacerbations this day, and in the night, were not near so severe as usual.

He continued better all day on the 8th, and the bubo, though not yet inflamed externally, was more protuberant. Had one stool only. In the night he was more restless, and feverish, than the night before.

On the 9th, he continued unquiet all day. The carbuncle discharged copiously, but the bubo seemed rather to have receded, than advanced. Had two stools. His head becoming a good deal affected in this night's exacerbation, cataplasms of garlic were applied to the feet, by which he seemed sensibly relieved.

On the 10th, the fever was moderate all day, and the night exacerbation very slight. The carbuncle continued to discharge, but the bubo, though painful, advanced very slowly, and the skin remained uninflamed.

The 12th, there had been no material alteration for these two days. The tincture of bark, which had been taken regularly since the 3d, was omitted this day. He complained of gripes, and had one or two loose stools.

The 13th, the griping pains continuing, he took a rhubarb bolus this morning, which operated two or three times. An anodyne was given at night; but the gripes continued all next day.

The 15th, The ordinary purging potion, which should have been given some days before, was taken this morning, and operated three times; by which the complaint of the bowels was removed.

The 16th, the fever, which had been very inconsiderable these two days, disappeared entirely; after which the bubo gradually advanced to maturation, and opened of itself in about ten days.

The 26th. For these last ten days the patient has made little or no complaint, except of the pain of the bubo, and sometimes a slight symptomatic fever at night. The carbuncle, after it once suppurred, gave little pain. The purging potion was repeated twice in this interval, and the bark was continued for several days.

A large quantity of matter was discharged from the bubo, when it first opened, and both it and the carbuncle continued to discharge for a fortnight. The ulcers did not heal till towards the end of September.

The present case affords an instance of blood being taken away so late as the 4th day, which was later than I usually advised it; and had my advice been asked, I should probably have given it against cupping. I did not however ascribe the succeeding bad night to that operation; the inquietude being a common circumstance at that stage of the disease, in cases where no evacuation had been made whatever. A less plethoric patient might have perhaps suffered more by the loss of blood.

This patient sweated much less than those who recovered usually did.

C A S E · XXII.

Sept.

A Christian boy, about seventeen years old, was taken ill on the fifth of September. He was bled the day following; and, as his doctor informed me, took some absorbent powders.

I saw him on the 4th, about noon. The eyes were muddy; the face flushed; the pulse small and extremely quick; the external heat intense; the tongue dry, but retaining its natural colour. He had remained speechless since last night, and made me no answer when asked if he felt any pain; yet he seemed to understand what was said, for immediately, at my request, he showed me his tongue.

The mother, with several other females in the chamber, assured me he had no external marks of the plague; I insisted, however, on examining him, and discovered a very painful, hard bubo, in the right groin. Two of the axillary glands, of the same side, were also swelled, and painful; but they were seated higher in the axilla than any of the pestilential buboes I had observed before. The skin, externally, of these tumours was not inflamed, but the boy wept, and shrunk when they were touched.

The family had till now been flattered with the hopes of the disorder being an ordinary fever, and when undeceived, would hear of no other remedy

medy than bezoar, which they themselves administered, as usual, in a trifling dose. The boy died next day. CHAP. I.

C A S E XXIII.

1761.

Sept.

An Italian, a man about forty, of a gross habit of body, and addicted to drinking, complained on the twenty-seventh of September, of head-ach, and giddiness; but said he had found himself rather unwell for two or three days before, on which account, he had lived temperately.

On the 2d day I found his pulse extremely low, but it indicated no fever, and the heat of the skin was natural. He appeared confused and unwell, without any specific complaints, except the head-ach, and giddiness. A diaphoretic mixture was ordered, and he passed a tolerably quiet night.

On the 3d, his former complaints still continued; but he thought himself rather better. The tongue retained its natural colour, and the eyes were not altered; but the pulse was more sunk, and the hands and feet cold, without discoloration of the nails. Suspecting that a hot paroxysm might come on in the afternoon, he was ordered, in case of the fever running high, to lose six ounces of blood; and a laxative potion was directed to be taken in the morning. No paroxysm, however, came on, and there was no occasion for the bleeding. He slept little in the night, but lay quiet.

On the morning of the 4th, I found him much in the same state as yesterday. The laxative did not operate till afternoon, and then only twice. The diaphoretic medicines (made a little warmer by the addition of serpentry) were continued. In the evening, he appeared to the women to be feverish; and he was restless in the night. Had two more stools.

On the morning of the 5th, appearances remained nearly the same, but the pulse was quicker, and more sunk; the skin of the hands and arms was cold: and though, at first, he said he found himself better, it appeared upon questioning him, that he was more thirsty than before, and sensible of internal heat.

The anomalous symptoms in this case, considering that the plague existed in the place, appeared to me, from my second visit, highly suspicious, and I had accordingly cautioned the family. This day, I enquired of the patient, as far as could be done without alarming him, if he was sensible of pain any where else than in the head, and was assured that he was not. Towards evening, he became worse, drank more, and passed a more unquiet night than ever; but his attendants could not perceive any considerable increase

CHAP. crease of heat, or fever. Towards morning, for the first time, he retched
 I. several times, but without bringing up any thing from the stomach.

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 October.

Early on the morning of the 6th, I found circumstances in the same state as before; the skin still rather cold. He persisted in saying that he felt no pain, except in the head; but complained of general inquietude. The retching he had suffered in the morning, furnishing a pretence for examining the præcordia, I took the opportunity of examining, also, the inguina and axillæ, but could discover no swellings. Upon pressure at the scrobiculum cordis, he complained of pain: a circumstance unusual in the plague, though not uncommon in the epidemic fever, at that time prevalent in the city.

About eight o'clock, he took ten grains of ipecacuanha, which operated five or six times upwards, and two or three times downwards, bringing off, both ways, a considerable quantity of bile. This discharge did not, however, appear to relieve him. At one o'clock his extremities became cold, in which state they continued in the evening, when word was brought me that he remained, in other respects, as I had seen him in the morning. In the night, he was very thirsty and restless, and had two fetid stools. Besides the diaphoretic medicine, he took, at times, of a cordial with the volatiles.

The morning of the 7th, he seemed to retain his senses perfectly, and when asked how he found himself, said he felt no material alteration since yesterday. His pulse, nevertheless, was extremely sunk, and his extremities had remained cold as ice for the last twenty hours. Though he did not complain of oppression about the præcordia, the attendants judging from appearances, that he suffered it, gave him frequently of the cordial. What surprised me most, was to find so little alteration in his eyes, and countenance. I visited him again at noon, on purpose to search for eruptions, but none were discovered, though I carefully examined the parts. His pulse, and looks remained as in the morning. The legs, thighs, arms, and back, were quite cold: the breast and belly retained some heat. These cold parts were sensible when touched, and the patient was ignorant of their having lost their warmth. The skin on the right knee was a little livid.

The women had remarked, in the night, that the nose, and the breast became cold like the other parts, but recovered their natural heat, towards morning: and the right leg also, for a short while, recovered its heat; while the thigh continued cold. Panada with wine was substituted as diet, instead of chicken-broth; the cordial was continued, and sinapisms were applied to the feet. In the night, he was very unquiet; rambled sometimes, but continued for the most part sensible. Had one or two stools; and complained

plained of a slight nausea, but did not vomit. One of the legs recovered some warmth, but soon lost it again. CHAP. I.

I found him, on the 8th, in the following situation, at eight in the morning. The eyes were become muddy; the pulse more sunk than ever, but not quicker. The tongue unaltered in colour, and moist. The urine, as from the beginning, of a healthy appearance. The skin universally cold, and clammy; the livid spot on the right knee spread; and the skin, on several parts of both legs, beginning to grow livid. The respiration not disturbed; and he talked sensibly, though he faltered in his speech. The pain of the head, he said, was less, but a weight, and confusion remained. He complained of a pain on the right side of the nose, but neither swelling or inflammation were discernible. The sinapisms and a cordial were ordered for form's sake. He expired about four in the afternoon.

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It was asserted by the person who washed the corpse, that there was a small bubo in one axilla. This, if true, must have been protruded after I searched him on the 7th.

I did not think eruptions were requisite, in this case, to determine the nature of the disease. At the same time, several symptoms were absent which usually attended the plague. The muddy appearance of the eyes came on very late; the inquietude was not in so great a degree, as it is usually when the pulse is so low, and the surface of the body becomes cold: the patient, moreover, remained more constantly in the same state, without those sudden transitions which so commonly attend pestilential cases. The pain he felt when the præcordia were pressed, was a common symptom in the epidemic fever which, at that time, was prevalent in the city; the surface of the body, often also in that fever, continued long cold: but the sick were more or less relieved by discharges of bile; the febrile exacerbations were more manifest; the senses more disturbed; and none perished in the manner of the patient in the present case.

C A S E XXIV.

A Christian merchant, whom I had often attended on former occasions, a man about fifty, of an atrabilious habit, and subject to the hæmorrhoids, was in the evening of the twentieth of October, taken with a slight shivering fit, succeeded by head-ach, violent febrile heat, and great anxiety about the præcordia. In this state he continued all night, drinking immoderately of cold water, which remained on his stomach. He had no nausea, nor disposition

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I.

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disposition to vomit. Towards morning the fever abated, and he had a stool.

I saw him the 2d day, about eleven in the forenoon. His eyes were muddy, and his countenance most remarkably altered; the pulse was low and intermittent. The tongue was not altered; and the heat of the skin moderate. His chief complaints were oppression at the heart, and weight or confusion, not pain, in the head. He replied sensibly to my questions, but appeared to be much dejected, and often eyeing his family who stood around him, was unusually reserved, and silent. When supported by cushions, as he sat up in bed, he remained motionless, but when left to himself, he reclined, varying perpetually his posture, as if in quest of ease. Whilst I sat by the bed, he arose, and, without assistance, crossed a large court-yard, to the necessary, without much alteration in his pulse from the exertion.

The preceding day, having left his house early in the morning, he had taken little or no nourishment, and in the night had tasted nothing but water. He was now prevailed on to take a little chicken broth, before the expected exacerbation should come on; and was ordered to be bled in the hot fit, unless the early breaking out of a sweat should prevent that operation.

About three in the afternoon, being then considerably more feverish, ten ounces of blood were taken from the arm; but the surgeon who bled him, informing me that the pulse had risen upon the bleeding, I ordered six ounces more to be taken away, which was done accordingly, after sun set. The diaphoretic mixture, with spirit. vitriol. was ordered for the night. Early in the night he became comatous, and lost the power of speech. A surgeon in the neighbourhood, who was called in about three in the morning, advised cupping, and took away about three ounces of blood. Nearly the same quantity was lost by the accidental loosening of the bandage of the arm, two hours after, so that he lost, in all, about twenty-four ounces of blood.

On the 3d, his eyes were muddy, fixed, and tinged of a deep yellow; the face cadaverous; the pulse small, and exceedingly quick; the tongue dry, but the external heat was temperate, and his breathing equal, and regular. He had no subsultus tendinum; the mouth was not distorted, nor were any of the limbs paralytick, for he was perpetually writhing them, and changing posture. He had lost the power of speech, but not entirely that of hearing; for he seemed sensible when the attendants spoke loud to him.

The body being uncovered, I examined the inguina and axillæ, but could discover no tumours. The marks of the cupping glasses were remarkably

ably livid. After the cupping in the night, they had administered a few drops of the Carmelite water, soon after which he vomited a little phlegm. Sinapisms were applied to the feet, and the diaphoretic mixture ordered to be given every two hours. A suppository (being the only mode admitted) was recommended to procure a stool, in order to relieve the bowels from flatulencies, which were indicated by frequent *borborygmi*, but this was rendered unnecessary by a natural stool.

I had already communicated my opinion of the distemper to the family, and recommended precautions for their own preservation; but the absence of eruptions disposed them more readily to trust assurances, which they received from a practitioner of physic, that the disorder was not pestilential, but a kind, as he termed it, of lethargic coma; and that much was to be expected from a repetition of the Carmelite water, and a blister applied to the back. I objected to the giving the ardent spirit, but consented to the blister, informing the relations, however, that I considered the patient's situation to be desperate.

I saw him a second time about two in the afternoon. The pulse was more raised, and he appeared to be less comatous; the mixture had been given regularly, and the attendants imagined several times that there were appearances of an approaching sweat. He had made several attempts to tear off the sinapisms, a mark of sensation that heightened the hopes entertained from the blisters. But amidst these circumstances, which flattered his family, there were others from which I drew different conclusions. His countenance to me seemed more ghastly, one of his arms felt cold and clammy, and the constant inquietude seemed approaching to mortal agonies.

In consideration of the person who was to apply the blister to the back, (which, from the manner of sleeping in night-clothes, is not only attended with trouble, but with more risk of infection) I had advised blisters to be applied to the legs, and the assistants were then employed in applying them. The patient grew worse as night approached, and expired between ten and eleven o'clock.

This merchant's warehouse was situated in the Vizier's khane, where a Persian merchant happened to lodge, with whom he had concerns in business, and who being seized with the plague on the nineteenth of October, died the twenty-first. From this person it probably was that he had caught the infection; for not suspecting the disorder, he had several times been in the sick chamber, which was, as usual in khanes, small and confined.

CHAP. I. None of the family, nor any of two or three other attendants, were afterward infected.

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The two foregoing cases, I considered as pestilential, though not accompanied with eruptions. The following case was not pestilential; but I have given it a place here, as an example of many of the same kind, during the whole of the pestilential season, and which not only occasioned much confusion in families, where they happened, but a good deal perplexed the medical assistants, of whom it was expected that they should decide peremptorily on the nature of the disease.

C A S E XXV.

The son of an honorary interpreter, a youth of a delicate plethoric habit, upon rising from bed, on the twenty-seventh, was seized with a giddiness, but, conceiving that it would soon go off, made no complaint, and set out from his house in the Christian suburb, (the Judeda) to open his father's warehouse in the Vizier's khane, in the city. Soon after his arrival in the khane, finding himself worse, he determined to return home, and before he had got half way, the giddiness increased to such a degree as rendered him incapable of getting further without assistance. As soon as he got to bed, he became extremely uneasy, writhed his legs and arms as if in pain, but made no other complaint than that he found himself extremely ill. In half an hour he lost the use of his tongue, and his hands and feet became cold; but what was remarkable, his face, naturally ruddy, retained its usual bloom, though he seemed hardly sensible, as if in a fainting fit. The women had recourse to the usual application of vinegar to the nose and temples, which appeared to revive him a little, but he still remained speechless.

I saw him at one o'clock, and found him lying composedly in bed as if asleep; his countenance unaltered, and his respiration undisturbed. The pulse was low, somewhat quicker than usual, and perfectly equal. The extremities still continued cold. He had, by this time, partly recovered his speech, but was only able to give an indistinct account of himself, further than that he was unwell, and his head so giddy upon sitting up, that he could not bear to have it raised from the pillow. Upon enquiry if he felt head-ach, or pain about the pit of the stomach, he said he did, but made slight of these complaints, compared to the giddiness, and to illness which he could not describe. Amidst all this, he said he felt appetite for food. The tongue was moist, and not discoloured, which it usually is, in some degree, when bile is lodged

lodged in the stomach. I ordered however some warm water to be given to excite vomiting, which failed in that effect, but seemed to be of service as a diluent, for he found himself better after it. I then searched the suspicious parts without discovering any tumors, except one small, hard, moveable gland in the right axilla. This upon pressure appeared perfectly indolent, and indeed was so small, that, joined to its not being painful, I could not declare it an incipient bubo. The other symptoms were however suspicious, more especially as the plague then actually existed in the Vizier's khane, as well as in many other parts of the city. I therefore suspended my opinion, but recommended precaution to the family.

I advised his being bled as soon as the extremities should become warm, and that vomiting should be encouraged, if he showed any disposition to it. About four in the afternoon, I was informed that he had had one stool; that his extremities had recovered some warmth; and that he seemed strangely averse to speaking, but answered distinctly when spoken to. A diaphoretic cordial was ordered, and eight ounces of blood directed to be taken from the arm, after the first or second dose. He took the mixture regularly, and before night his extremities had recovered their natural heat; but finding himself much better, and not feverish, the bleeding was deferred till I should see him next day. He passed the night quietly.

I found him on the morning of the 2d perfectly calm; the pulse natural, and the external heat temperate; but the tongue was a little yellowish, and he complained of bitterish taste in the mouth, and dryness of the lips. A purge was ordered to be taken early next morning, and that he should in the meanwhile drink plentifully of a diluent ptisan, as usually practised in that country, by way of preparation before a purgative. In the evening he felt himself a little feverish, but passed a good night.

On the 3d, he was very well. The purging potion operated two or three times. The swelled gland remained as before, and possibly might have been long in the same state.

On the 4th, being quite well, he went abroad about his usual affairs.

At another time, a case of this kind would have at once been ascribed to bile, and have occasioned little alarm; but in the pestilential season, anomalous symptoms always caused suspicion.

The symptoms commonly in that country ascribed to bile (and perhaps often with justice) are frequently of a strange anomalous kind; but I was sometimes inclined to think, that during the pestilential season, allow-

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 October.
 ance also was to be made to the power of imagination, and to impressions made on the mind. The death of the Persian merchant, on the twenty-first of the month (Case XXIV) and of the Christian merchant the day after, were well known to this youth; nor was he ignorant that others of his neighbours in the Vizier's khane were supposed to be infected. Finding himself taken suddenly with a symptom reputed common in the plague, he might naturally be alarmed, though unwilling at the same time to own his apprehensions: and partly to this cause I ascribed his silence and reserve, after he certainly had recovered the use of his tongue.

C A S E XXVI.

1762.
 March.
 An Armenian youth, who lodged in Hadjee Musa's khane, was taken ill on the twelfth, and bled next day. A vomiting and excessive thirst were constant symptoms from the first.

I found him on the morning of the 3d in a small confined chamber, lying as if asleep, but he was easily roused, and appeared to be perfectly sensible. The pulse was full, hard, and moderately quick, the tongue white, the face flushed, but the eyes not altered. He complained of head-ach, and oppression at the heart; but most of all of the vomiting. I was assured, by those who searched him, that there were no eruptions. He was ordered to lose eight ounces of blood, and to take a saline draught every four or five hours.

On the 5th, there was little alteration since the 3d, only that the vomiting was less frequent. The pulv. contrayerv. edin. was added to the saline mixture. The exacerbations were severe in the night, but declined towards morning.

I had no opportunity of seeing this patient a second time till the morning of the 6th. They had removed him, at my request, into a more airy chamber. The pulse was calm, nearly in a natural state; but the eyes and countenance had acquired the pestilential look, which confirmed the suspicion I had entertained from the first. I caused the youth therefore to be raised up in bed, and silencing those about him, who were officiously assuring me that it was in vain to look for any plague sores, I asked him whether he had not been sensible of pain in some other part besides the head. To this he replied by pointing to the right axilla, adding, that he had suffered pain there ever since the morning of the preceding day. Upon uncovering the axilla, I found a bubo the size of a large hazel nut, hard, and not inflamed externally. A plaster was ordered for the bubo, and the former mixture was continued.

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I was informed on the 7th, that he found himself better, and that the vomiting had ceased. Huxham's tincture was ordered instead of the former mixture. The bubo had increased in size, and was more painful.

From the accounts I received on the 8th, the pain of the bubo appeared to be the chief complaint. But I suspected he was very ill attended, from the time the bubo was discovered, and my accounts of him after that time, were indistinct. The tincture was ordered to be continued, but his attendants, finding him grow worse, did not administer it. He died the 9th day.

CHAP.

I.

1762.

March.

I much regretted the not having it in my power to attend this patient more closely, as I had formed hopes of the case, from some appearances on the 3d, particularly from the pulse, and the unaltered state of the eyes. The continuance of the vomiting was indeed a bad symptom; and though it ceased at length, it was not till after the eyes had acquired the characteristic mudiness. I suspected the patient concealed the pain in the axilla, from an apprehension (which in the sequel proved just) of being deserted when known to have the plague.

C A S E XXVII.

A young lady of French extraction, of a thin, slender make, found herself indisposed on the twenty-eighth, but conceived it to be nothing more than an accidental cold.

She called at my house the morning of the 2d day, on her way from church. She was a little feverish, and complained only of a stiffness of her neck. Upon examination, I found one or two of the cervical glands swelled, and on the anterior part of the neck an eruption about the size of a large pea, partly yellowish, shrivelled a little on the top, and the skin round it slightly inflamed: she had besides a hard painful tubercle on the crown of the head, which I could not well examine on account of the hair.

I conceived at first, the eruption on the neck to be a carbuncle, but was told that she was subject, in the spring, to eruptions of that kind, and had actually now several others, though smaller, on the back. I told her the matter, in that case, was of no consequence, but desired she might let me know how she did in the evening, and I would order some cooling physic, for next day. In place of sending, she returned herself in the evening. She was now more feverish, and complained of an oppression about the præcordia. When questioned about the eruptions, she made light of them, declaring they gave her no pain; a circumstance I did not credit, and which, joined to a

CHAP. certain confusion of countenance, convinced me she felt herself more indisposed than she was willing to acknowledge.

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March.

I ordered some diaphoretic powders, and that she should be bled; but thought proper, by a private message to the family, to communicate my suspicion of her disorder.

I was informed on the 3d, by the mother, that the patient was in all respects better, and that the eruptions were beginning to dry off, in the same manner as those used to do to which she had been before subject. She had not been bled, from an apprehension of danger in calling into the family a person who might have been among the infected; but the mother had taken away a few ounces of blood, by cupping-glasses. In the evening she became more feverish, and the complaint at the præcordia increased. A diaphoretic mixture was ordered, which she thought relieved her, and she passed a tolerably quiet night.

The eruptions, as I was told on the 4th, were all gone, that on the neck excepted, of which something still remained. Through this day she was variably calm and feverish. In the evening she grew worse, passed a bad night, and had two loose stools.

On the 5th the proportion of nitre in the mixture was diminished, on account of the looseness. In the night she was less unquiet on the whole, but had vomitted once or twice after taking the medicine. She had one stool.

On the 6th, the mother persisted in asserting that the eruptions were all gone, except the one on the neck, and this she, with seeming reluctance, confessed was a little more inflamed since yesterday; but that it gave her no pain, and was certainly nothing else than her usual spring eruption.

April.

Had my first suspicion of this eruption been just, its progressive changes ought to have been very different from what they had been, on the supposition of the accounts brought me being true. This, with the unconcern of the family hitherto, inclined me to think I had been mistaken, and I therefore determined to visit her; but in order to avoid the inconvenience of being obliged, in the midst of my daily rounds, to return home to shift my clothes, before visiting patients not infected, I deferred my visit till the afternoon. About one o'clock I found her in the following state: her face was a little flushed; the pulse low, and slightly feverish; the heat of the skin moderate; and the tongue moist, and of a natural colour. Her countenance was confused and dejected, but her eyes were less muddy than usual in the advanced stages of the plague. Finding her perfectly sensible, I endeavoured to inform myself more distinctly of her complaints, but she still seemed cautiously reserved,

served, and solicitous that I should not find her distemper what, she knew I suspected it to be. The oppression of her heart, she owned, had increased, but her principal complaint was a burning pain at the pit of the stomach. She assured me that the tubercle on the head was almost gone, and, as well as the eruption on the neck, gave her little uneasiness; and that she was not sensible of pain either in the groin, axilla, or any where else, except what she had already mentioned.

A cataplasin which had been applied to the neck being removed, it was not without some surprise that I found so conspicuous a carbuncle, after the representation that had been repeatedly made of it. The pustule, which I saw at the beginning, was now increased to the size of a pigeon's egg, livid, except near the base, which was hard, and, as well as the skin round it, highly inflamed; the skin on the middle was shrivelled, and a sanies oozed out from the edges. Several of the cervical glands were swelled, and the left parotid was considerably enlarged. All these swellings, particularly the first, were painful, though the girl denied it at the time; but she confessed to her sister, after I was gone, that she had concealed her suffering pain from the swelling in the neck, and the tubercle still remaining in her head, from an apprehension of being left to die by herself.

Word was brought me in the evening, that she had suffered more than ever from the oppression at the præcordia, but in that respect was now easier; that she complained of pain in the left hypochondre, and that her menses had appeared ten days earlier than the regular period. She expired about midnight.

Such pains were industriously taken, in this case, to conceal the truth, that I consider the accounts I received of the progress of the disorder, as very imperfect.

Though, after my visit on the 6th day, no shadow of doubt could remain of the nature of the disorder, it was with some difficulty the family could be persuaded to consult their own safety, by desisting from going into the chamber. But when the girl died, they were in the utmost confusion, eager for instantly deserting the house. The family consisted of seven or eight persons, who had been exposed, in different degrees, to the infection, but all of them escaped.

It may easily be imagined how the family should have been deceived, at the beginning, as to the nature of the disorder, but it is more difficult to account for their so long deferring the precautions recommended to them. There

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can be little doubt that they harboured suspicion, the progress of the carbuncle being daily visible, and the concealing of it so pertinaciously from me, was a proof of their apprehension that a discovery would have put a stop to their communication with others.

The truth was, the accident happened at a period, when all means were employed to prevent the Europeans being alarmed. The family was half European, and the master of it so connected with the trade of the city, that a pestilential accident in his house, was likely to make more noise than a hundred, in other quarters.—The present case, therefore, has been selected from many others of the same kind, as a proof of the influence of certain considerations, even over the principle of self-preservation; and, at the same time, to show the difficulty of procuring true information concerning the plague, before the distemper be declared universally, or while motives for concealment subsist.

C A S E XXVIII^r.

Osman, a middle aged man, one of the janizaries in the service of the Dutch consul, was taken ill in the afternoon of the thirtieth of April, and complained of pain in the right groin. He was bled.

May.

A person whom I sent the evening of the 2d day, to visit him, found him lying as if in a deep sleep, from which, when roused, he awoke sensible, seeming to understand whatever was said to him, but his tongue faltered so, that he could with difficulty be understood. The skin was burning hot. He had neither nausea nor vomiting. There was a bubo near the crural vessels.

A diaphoretic mixture was ordered. He was very restless in the former part of the night, but, sweating a little towards morning, he became calmer.

On the 3d, he continued apparently better all day, till evening, when he suffered a severe exacerbation, the fever, attended with thirst, &c. running very high. He passed the night, however, less uneasily than the former, and had one stool.

On the 4th, his chief complaint was the pain of the bubo, which remained hard, and uninflamed. He found himself, upon the whole, so well,

^r It should be remarked here, that in many of the subsequent cases, I did not see the patients myself, but prescribed for them, on the accounts brought by their attendants, being myself, at that time, shut up with the factory. Such cases, in which the accounts seemed most distinct, have been selected from a great number more imperfect, contained in my Journals.

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that he determined to contradict the report that had got abroad of his having the plague, and for that purpose, was carried abroad to an adjacent coffee house, where he staid an hour or two, smoking his pipe. The evening exacerbation was extremely severe, and he passed a restless, delirious night.

The 5th. Though calmer in the morning than he had been in the night, he continued still restless, and complained much of anxiety, and oppression at the heart. He expired in the afternoon.

The diaphoretic mixture had been taken regularly.

C A S E XXIX.

An Armenian youth, about twenty years of age, brother to the man who supplied my house with water, was taken ill the first of May, a bubo appearing in the right groin. He was bled that evening.

During the three first days, the evening and night exacerbations were pretty severe, but he always retained his senses. After the 3d night, the exacerbations, attended with thirst and inquietude, though they returned regularly, were slighter. He had a stool daily, and had never vomited.

The above account was brought me on the 6th day, by his brother, who added that the bubo was painful, but not much enlarged. The pulv. contrayerv. with a little nitre was ordered, and a poultice applied to the bubo. He was more than usually restless in the night, and had two stools.

On the 7th, he was tolerably calm all day. The bubo seemed to advance. The nitre was omitted on account of the bowels, and they again became regular.

After the 8th day *, he took no more medicine, and the cataplasms being found inconvenient, a plaster was applied in its stead. The febrile paroxysms continued to return in the nights till the 15th, and then disappeared. The bubo made slow progress before that time, when the skin inflamed, and the tumor advancing more perceptibly to maturation, opened of itself the 26th, and healed favourably.

C A S E XXX.

A Jew banker, in the service of the seraglio, a man between thirty and forty, and of a healthy constitution, had been slightly indisposed with a cold, for several days, about the beginning of May, but went about his ordinary affairs. On the fifth, he returned from the *bazar* before noon, complaining of head-ach, a slight shivering, and (as represented to me) a pain in the left breast, upon breathing. He soon after became feverish, and was bled. At

* It ought to have been mentioned before, at the beginning of the Appendix, that the day of the month is expressed at full length, the dies morbi in figures.

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bed-time he took a diaphoretic powder, and, though still feverish, passed a tolerable night.

The 2d day, accounts were brought me that he had vomited some bile, early in the morning, and a nausea still continued. Upon enquiring more strictly into the complaint of the breast, I found the pain, in reality, was in the axilla; but that no tumor could be discovered there. He was directed to encourage vomiting by repeated draughts of warm water, and afterwards to take of a diaphoretic mixture. The water produced no vomiting, the other medicines remained on the stomach, and the women had, besides, administered some bezoar.

By the report in the evening, he remained much in the same way; but had had three small stools, which greatly alarmed the attendants. A few grains of diascordium were added to the diaphoretic mixture. After midnight he had another stool, and was very restless all night; more from the pain in the axilla than from the fever.

On the 3d, he complained of heaviness, and much confusion in his head, and seemed strongly inclined to slumber. The external heat was temperate, and the urine of a yellow colour, which though it might be partly owing to the saffron in the contrayerva powder, I suspected to be chiefly owing to bile. The sleepy disposition, I regarded as a bad symptom; for he had not taken above one scruple of the spec. diascord. and that at twice. The axilla had been examined, and no swelling discovered; but, as they owned he could not, without complaining, bear the touch of a finger, I made no doubt of a bubo being there, and ordered a cataplasm to be applied. The patient showing some disposition to sweat, a diaphoretic mixture was ordered, a dose of which was to be taken every four hours. By the accounts brought in the evening, he had had four stools from ten in the forenoon, and had taken once only of the medicine. About noon, a very severe exacerbation came on, and the fever still continued high. The pain in the axilla had increased after the application of the cataplasm, and the tumor was now visible. A small dose of diascordium was ordered at bed-time, and the former mixture to be given in the night. An acidulated cordial was to be taken occasionally. He passed a restless night; had no stools; and sweated a little.

The 4th. Notwithstanding he had sweated, the morning's remission was less distinct than yesterday's; he continued feverish, with little or no thirst. The urine, as before, yellow. The bubo had advanced, and the pain from it was his chief complaint. The simple contrayerva root, with spirit. nitr. d. was substituted for the compound powder, with a view to dis-

cover the effect of the saffron on the urine, which was unusually high coloured. The new medicine was to be given every two hours. The exacerbation was extremely severe this day, and came on before noon. The pain of the bubo was excruciating. At four in the afternoon, I was informed, that his feet were cold, and that he was perpetually changing posture in bed. He retained his senses perfectly, and complained of much oppression at the præcordia. As this complaint seemed to be alleviated by the cordial, it was continued, but all other remedies left off. He expired about midnight.

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The bilious appearance of the urine, the nausea, and the diarrhœa, would have induced me to have directed evacuations, but it was in vain to propose them; and I have little doubt that, in this case, they would not have proved of service. The excruciating pain of the bubo so early in the disease, was an unfavourable symptom, and so was the drowsiness on the morning of the 3d day.

C A S E XXXI.

A stout young man, a native of Aleppo, and by trade a baker, was taken ill in the usual manner, on the tenth of May, and a bubo appeared the next day in the left thigh. The fever running high for several days at the beginning, he had been twice bled, but had taken no medicine. He applied to me on the 15th day of the disease. The bubo then appeared ripe for opening, the skin much inflamed, externally. Besides the inguinal bubo, there was a very painful tumor on the left breast, which appeared likewise ready to open. Plasters were given to be applied, and both opened the day following. The 22d day, he went to the bagnio, and on his return, came to thank me for my advice. I ordered him a purge. The bubo discharged very little after the fourth or fifth day. The tumor on the breast healed very soon.

I have given this defective case a place here, on account of the tumor on the breast, and as furnishing an instance of a case terminating happily, wherein the patient had been twice bled.

C A S E XXXII.

A middle aged man, the porter of one of the public khanes, was taken ill the fifteenth of May, and, on the 2d or 3d day, the right parotid swelled. He neither was bled nor took any medicine.

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His relations applied to me on the 6th day. By their accounts, he was highly feverish, and lay for the most part slumbering, or in a state of stupidity. The parotid was extremely hard, but not inflamed externally. He had never vomited, and his body was costive.

The prejudice entertained by the Turks against camphor, on account of its supposed enervating quality, was a common obstacle to its exhibition; but this man being an Armenian, I ordered a few grains to be added to the diaphoretic powders. The attendants imagined he passed the night more quietly than usual, though he did not sweat.

The 7th. I was informed, that he appeared to be better; and they begged the same powders might be continued. He had sweated considerably in the night.

The 8th. I was assured that he still continued better, but that the parotid was become much more painful. It had hitherto only been anointed with *unguent ex alibæa*; this day a cataplasm was ordered, and the powders were continued.

On the 9th, he found himself so well, that he declared he would take no more medicine, and was importunate for various kinds of improper food. Whether he was indulged or not I do not know; for I heard no more of him till after his death, which happened on the 11th day.

This case might have led me to think more favourably of camphor, had it not frequently been tried with less apparent benefit, in instances where I had an opportunity of observing its effects more accurately.

C A S E XXXIII.

An Armenian youth was taken ill the twenty-fifth of May, and a bubo appeared in the right axilla. He was bled the 2d day.

The 4th, I was informed that he had from the first day remained almost constantly in a sluggish, sleepy, state; that he had taken little or no sustenance, and drank very little; he had never vomited, and his body had been regular till the night preceding, when he had two loose stools. Diaphoretic powders were ordered, of which one only was taken. The poor creature was badly attended.

The 5th. He appeared more sensible and alert in the morning, but the fever run higher, and he had more thirst. The powders were continued, and spirit of vitriol, with syrup of violets, was ordered to be mixed with his drinks.

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The 6th. By this morning's report, he was speechless, and appeared, from his incessant change of posture, to be extremely ill. He drank greedily of the acidulated drink, but could not be prevailed on to take the powders. He expired in the night.

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C A S E XXXIV.

An Armenian baker, a young man, was seized with febrile symptoms on the twenty-first, and a bubo appeared in the right groin, the day following. He was not bled.

On the 3d day, I was informed that he had from the beginning generally been comatous; that he now lay speechless, and with great difficulty could be roused; that he seemed to be highly feverish, his skin burning hot, but he drank little. I ordered sinapisms to be applied to the feet, and that he should be bled. This last order was not complied with. In the evening, I was informed, that some time after the sinapisms had been applied, he became more sensible, and that, though the fever still continued high, he appeared on the whole to be better, and less restless. Diaphoretic powders with nitre were ordered, but one or two of them only were taken.

The 4th. I learned nothing further of this patient till several days after his death, which happened the afternoon of this day.

C A S E XXXV.

An Armenian baker, near the Vizier's khane, a young man, found himself indisposed for the first time on the twenty-sixth, and discovered a bubo in the left axilla. He was bled the day following.

His family applied on the 4th day for my advice, but I could collect only very imperfect accounts of the progress of his disorder. He lay then, by their description, as if comatous, which had been mostly his condition from the day before. At intervals he drank immoderately, but for these last forty hours had been able to retain nothing on his stomach. His stools were regular, and natural. The bubo remained hard, and he did not complain of pain from it. I ordered salt of wormwood and lemon juice to be taken in the act of effervescence, but was not informed of the success. He died some time on the 5th day.

C A S E XXXVI.

An Armenian youth, a lodger in one of the public khanes, was taken on the twenty-ninth with a slight cold fit, succeeded by a head-ach and fever; and, a few hours after, a carbuncle was protruded on the forehead. He was bled

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bled in the evening. Next day, the right parotid swelled. He was hot, and extremely unquiet; and the skin remained hot and dry, till night, when he sweated a little about the head and neck.

The 3d day, he appeared much more composed in the morning; his chief complaint being from the pain of the carbuncle, which had spread since yesterday. Towards noon he became comatous, but when roused appeared sensible. The carbuncle spreading, and the parts round it much swelled. A draught composed of half a scruple of sal. ammon. vol. acct. distil. &c. was given at bed-time, but no sweat followed, and he passed a very disturbed night.

On the 4th, the carbuncle was become black in the middle, and the eyelids were much swelled. In other respects he remained in the same state as the preceding afternoon. Diaphoretic powders were ordered, but he took none of them, as I learned afterwards.

I heard no more of him till after his death, which happened on the 8th day. The parotid, it seems, had increased considerably in size, but remained quite hard. The carbuncle, round the edges of the black crust, showed some signs of supuration. The swelling of the forehead and eyelids had subsided considerably, the last day; but the glands of the throat had swelled to such a degree as to prevent his swallowing any thing, and that he seemed to die, as it were, by strangulation.

C A S E XXXVII.

A Christian girl, about fourteen, was taken ill on the twenty-fourth, and a bubo was discovered in the right groin. She was bled, and took a few grains of bezoar. She continued feverish and restless the two following days, but had no vomiting, and her body was regular. On the 4th day, she grew worse, and in the night became comatous and delirious.

The above was the account I received on the 5th day. She had recovered her senses, and appeared to be much better; the fever was very moderate. She had regularly sweated a little every day. The bubo was double, the superior round, and smaller than the inferior which was oblong like a small cucumber, and lay obliquely in the thigh. She had taken no medicine, except once a little bezoar. A plaster was applied to the bubo, and diaphoretic powders were ordered; but she took only one of the powders, and not till next day. In the night she sweated profusely.

On the 6th, I learned that she had been remarkably better since the sweat. The tongue was very white, and not dry. She had not slept in the night,

night, but had little fever, and no thirst. The bubo was increased in size, and more painful.

On the 7th there was no material alteration.

This girl recovered very slowly. The bubo continued in a variable state till the 17th, when it began to decrease, it never was very painful after the first week, and the skin remained uninflamed. After the 17th it gradually dispersed. She had taken no medicines except the bezoar and one powder, and was not purged in the decline of the disease.

C A S E XXXVIII.

A young man found himself indisposed on the twenty-ninth of May, and a bubo was discovered in the left axilla. Next day a carbuncle was protruded on the middle of the left arm.

On the 5th day he applied to me. He had not vomited, and his body was regular. He had sweated a little every day. The bubo was hard and painful, not much enlarged, nor inflamed externally. The carbuncle was black in the middle. He took a diaphoretic powder at bed-time, and sweated profusely in the night.

On the 6th, the fever, drought, and confusion of the head, were much alleviated by the sweat, and he appeared to be greatly better. The carbuncle was exceedingly painful, but showed some signs of suppuration. The diaphoretic powders were ordered to be continued; but the poor creature, who was a stranger, had few to assist him, and those perhaps were themselves taken ill, so that I heard no more of him till ten days after, when I only learned that he was still confined, though recovering.

I do not think the sweat on the 5th was to be ascribed to the diaphoretic powder; a sweat often broke out spontaneously on the 5th day, and the powder, which was only p. contayerv. edinens. was often given without effect; nevertheless, it may be supposed to assist, where there was a predisposition to that evacuation.

C A S E XXXIX.

An Armenian gunsmith, aged about forty, was taken with a shivering, &c. on the twenty-seventh, and a bubo appeared in the left axilla. Next day he was bled, but the fever continued high.

On the 3d he was better, in respect to the fever, but extremely dejected, and apprehensive of death. At noon he had an exacerbation, which declined

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clined about four in the afternoon, but a more severe exacerbation coming on in the evening, and continuing most part of the night, his wife expected he would have expired. He took diaphoretic powders with nitre, every six hours.

On the 4th day, he was more composed in the morning, but still hot and drougthy. The powders were continued, and his drinks acidulated. The night exacerbation was very severe, but terminated in a sweat.

The morning of the 5th he was much more composed. A gum plaster having been applied to the bubo, the swelling soon after became so painful that the patient tore the plaster off, and insisted on having some *leban*^a applied in its stead. In the night he was not so restless as the night before, but had three stools.

On the 6th he was variably better and worse all day. He sometimes lay in a stupor, sometimes appeared extremely disturbed, and at other times composed, and surprisingly well, but never remained one hour in the same state. He appeared less unquiet in the night; was at times confused, but never lost his senses. He had three stools, though the nitre had been changed for diascordium.

On the 7th, after a sweat early in the morning, he appeared to his wife to be more composed, and much freer of fever; but his tongue was affected, and his strength exhausted. The bubo, by her account, was somewhat inflamed externally. He expired in the afternoon.

C A S E XL.

A woman five months gone with child, was taken with pestilential symptoms the twenty-ninth, and a bubo was discovered, the same day, in the right thigh. She was bled, and took a few grains of bezoar. On the 4th day, she was delivered of a child who had two buboes, one in the right groin, the other in the right axilla. The child lived only a few hours.

I received the above account the morning of the 5th day. She had lost, it seemed, an uncommon quantity of blood, after her delivery, and then appeared much fatigued and exhausted. She had in the night been very restless, moving about perpetually in bed, except at intervals, when she lay as if stupid, or insensible. Some medicines were ordered, and her attendants were desired to return next day, but I heard no more of her; from which circumstance, joined to her situation on the 5th, I concluded she must have died.

This imperfect case has been inserted on account of the infection of the child. It often happened that the new-born child of an infected mother had no marks of the disease.

^a Coagulated milk.

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The wife of a druggoman, or interpreter, a lady about twenty-eight years of age, of a plethoric habit, and the mother of two children, had been indisposed the beginning of April with an intermittent fever, which, after a few paroxysms, was removed by the bark. On the fourteenth of May, while sitting at work, on her divan, she felt an obtuse pain in the forehead, something like what used to precede the fits of the intermittent fever; but this, instead of increasing, seemed to descend to the left temple, and she was sensible at the same time of an uneasy sensation in the left hypochondre. Being at other times subject to nervous complaints, she paid the less attention to what she now felt, but was soon more seriously alarmed by a shooting pain in the left groin. This induced her to rise up, and take two or three turns in the room, when not finding the pain increased by motion, she began to consider it as merely imaginary. The pain however returned at intervals, and about two in the afternoon, that is two hours after she first felt the pain, the part being inspected, a hard tumor, the size and shape of a very small cucumber, was discovered near the crural vessels.

At four o'clock her extremities became cold, she complained of lassitude and of pain in her legs and shoulders. Her arms and hands recovered their warmth in about two hours, but the legs remained cold. She had no disorder at the stomach, and, though she suspected she had got the plague, desired I might be informed that her spirits were better than I had known them on other occasions, when there was less cause for despondence.

From this account, which was brought me in the evening, I advised her to be bled as soon as the legs should recover warmth. Diaphoretic draughts were ordered to be taken at bed-time, and early next morning. After the bleeding she complained of pain, and confusion of the head; but the fever was moderate, and she had little thirst. After midnight she became more unquiet till towards morning, and then found herself better, though she did not sweat. She had had one stool in the forenoon.

On the 2d day she was tolerably calm in the morning, but complained of a loathing, and a bad taste in the mouth, without however any disposition to retch. I wished her to take a vomit, but she would only take warm water, which she did without effect.

From the time she took the morning draught, she had remained mostly as if dozing, and for some time after the exacerbation came on, at noon, they found a difficulty in rousing her to take drink or nourishment; but she assured them that she lay in that manner, not from desire to sleep, but because she

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found herself most at ease in such a posture, the least motion or attempt to sit up greatly increasing the disorder of her head; and she convinced them that she had distinctly heard what was said when they imagined her to be in a state of insensibility. In the exacerbation, her cheeks were flushed, and her eyes red and sparkling, but she constantly retained her senses.

In the evening, she appeared, in all respects, much worse, complaining chiefly of extreme anxiety, or oppression at the heart. Her medicines were a diaphoretic mixture every five hours, and an acidulated cordial occasionally. Two carbuncles had been protruded this day, one on the left hip, the other lower, on the thigh. She passed the first part of the night very unquietly. The fever afterward became more moderate; but she could not sleep, complaining much of her head, and of pains in her limbs; the oppression at the heart continued, but was always mitigated by the cordial. Towards morning the head and breast sweated a little.

The morning of the 3d, she complained of a bad taste in the mouth. The bubo, to which a cataplasm had been applied, remained as before; the carbuncles were spreading.

About ten in the forenoon, her hands became cold, and of a livid colour, and the anxiety at the præcordia increasing, she fell into a fainting fit, in which she remained so long that her attendants conceived her to be dead. On recovering from this, she complained of violent pain in the left side, and remained languid and faint till four in the afternoon: at that time she had little or no fever, and no thirst, but could with difficulty be persuaded to take sufficient sustenance, her stomach loathing every thing offered her. She had one stool. Confection of alkermes was added to the diaphoretic mixture. She passed the night with very little fever, but did not sleep, nor did she sweat towards morning.

On the 4th day, the faintness and languor were much diminished, but she seemed disposed to fall into the same drowsiness as on the 2d day. The superior carbuncle discharged a little matter, the other remained dry. A little castor was added to the other medicines. The drowsiness going off, she passed a tolerably good day. In the night the attendants could hardly discern any fever, but she had little rest, and did not sweat.

On the 5th, though she had had no sweat, she found herself remarkably better in the morning. In the day she slept two or three hours composedly, and her head and neck sweated a little. The bubo had decreased in size. In the night she was a good deal more unquiet than usual. She frequently complained of pain in the right hypochondre, and in the right thigh. The left shoulder ached also, and she was sensible at times of a shooting pain in the
left

left axilla. The feverish heat was moderate all night, and she showed no disposition to sweat. CHAP. I.

On the 6th day she was tolerably calm till noon, when a violent exacerbation came on, which continued till evening, and then declined without any sensible sweat. During this exacerbation the fever ran high, and she complained much of internal heat. The pain in the axilla still remaining, she was much dejected, from the apprehension of a new bubo which she imagined must inevitably prove mortal. The exacerbation had left her extremely languid, and with more head-ach and thirst than corresponded with the remaining fever. A mixture composed of sal. vol. ammon. acet. distil. &c. was ordered to be taken at thrice, beginning at bed-time. The fever increasing as night advanced, she became extremely languid, and suffered much from head-ach and thirst, till between four and five in the morning, when a profuse sweat broke out, in which she remained near two hours; but then growing low, faint, and unable to support it longer, the attendants thought it advisable to check it, by shifting her clothes. She had one stool.

The 7th. The fever this morning, though much diminished, was not gone. She felt little of the pains of the side, or the thigh, but the shoulder and axilla continued still painful: no swelling could be perceived in the axilla. The inguinal bubo as yesterday; the inferior carbuncle black in the middle. A mixture with Huxham's tincture, and spirit of nitre, &c. ordered for the day.

Between nine and ten in the morning she had a short chilly fit, after which the fever increasing, she became very unquiet, sometimes delirious, till noon, when a breathing sweat, on her head and breast, mitigated the symptoms; she recovered her senses, but remained feverish. Towards evening she grew worse, the fever rose high; she insisted on sitting in a chair, and walking about the room, but in other respects talked coherently, and expressed much satisfaction at finding the oppression at the præcordia lessened. Distilled vinegar was added to the diaphoretic mixture, for the night, and sinapisins were ordered in case of delirium. She became remarkably better before bed-time, passed a tolerable night, and towards morning, after a gentle sweat on the upper parts of the body, the fever seemed to disappear entirely.

The 8th, she remained tolerably well all day, the noon exacerbation being very slight. The bubo gave little pain, and was reduced to half its former size. She took two diaphoretic powders through the day, and a draught composed of spirit. mindereri and confect. alkerim. in the night. She passed the night tolerably, the fever being very moderate.

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The 9th day, about eight in the morning she had a cold fit, slighter than that of the 7th, and the succeeding fever was less severe, and of shorter duration. She did not become delirious, as before, but complained greatly of the oppression at her heart. She grew feverish again towards evening, and was restless all night.

The 10th. Not having sweated this morning, the fever, in some degree, still continued. She seemed extremely sunk, and complained much of the oppression at the præcordia. The acidulated cordial was continued, and draughts ordered, of spirit. mindereri, &c. It was recommended also to give her chicken broth frequently, two or three ounces at a time. At two in the afternoon, about an hour after taking the draught, a sweat broke out and continued two hours. Though this seemed to weaken her, yet she thought herself better, and eat her broth with much less reluctance. The oppression at her heart was gone, but she complained of a flatulent pain in the belly, which was relieved by a few spoonfuls of an anti-hysterical mixture, and she passed a tolerably quiet night. The body was not costive.

The 11th. The fever continued slightly till this day at noon, when it disappeared without any sensible sweat. The bubo was decreasing, and the carbuncle was healing.

On the 12th, the only complaints remaining were weakness, and loathing at stomach. A purge would have been proper here, but the patient's want of strength, and the common prejudices against evacuations, were insuperable obstacles. Huxham's tincture was taken twice a-day.

The 15th. For these two nights she has been somewhat feverish, but was generally relieved by a sweat in the morning, or the forenoon. A rhubarb bolus taken this morning operated twice copiously. Both carbuncles were now healed, and the bubo, though still a little painful, was evidently discharging; but at night the complaint of the left shoulder returned, and a hard swelling, as big as a pistachio nut, was discovered in the left axilla, the day following. This gave little pain when touched, but all the parts around, felt to her as if she had had a contusion on the skin.

The 17th. She found herself very well. The swelling in the axilla as before; the bubo much the same for these three days. A plaster was applied in place of the poultice; and a rhubarb bolus with six grains of calomel ordered for next day.

The 19th. She had been very well yesterday, but the rhubarb operated only once. This day she was feverish, and complained much of oppression at her heart, as she had done formerly in the febrile exacerbations. Had three loose stools.

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The 21st day, she had been more or less feverish for these two days, and still continued so, notwithstanding she had sweated yesterday evening, and again this morning. She was exceedingly exhausted and weak. Her medicines were spirit. mindereri and cordials. The swelling in the axilla gone.

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The 23^d. Yesterday she had been better in respect to the fever, but felt a weight at the stomach, and loss of appetite. This day she took a purging potion, which operated five times, relieving rather than fatiguing her. She took an anodyne at bed-time, and passed a good night. From this time she recovered slowly, being subject every two or three days to febrile exacerbations. The purge was twice repeated, and she took the bark.

The 30th. The remains of the inguinal bubo could hardly be distinguished by the finger.

This lady had a child of two years old at her breast, which she continued to nurse all the time of her illness, without communicating the infection.

The indications for purging, in this case, were strong, and I expected a diarrhoea in consequence of the neglect; but the event showed I was mistaken. I still considered it however as proper, and ascribe several of the symptoms in the exacerbations to bile in the bowels: to that, perhaps, may also be imputed the manner of accession of the febrile paroxysms, resembling remarkably those of intermittents.

The spirit. mindereri seemed to be of service, and the acidulated cordials were of use, as they frequently had been found before, in other instances, for the oppression at the heart.

C A S E XLII.

A girl eight years old, who for ten or twelve days had laboured under a regular tertain, was on the fifth of June seized (as her attendants believed) with her usual paroxysm; but they were alarmed upon finding the fever did not decline at the customary period. The fever continuing all the following day, a bubo was discovered in the right groin.

The 3^d day, the girl was brought to me in the afternoon. Her face was pale, but the eyes not muddy; her countenance being rather that of one who had been some time sick of a chronic disorder, than of one infected. Her tongue was white. Her body was regular, and she neither had nausea, nor had vomitted. The fever was attended with irregular exacerbations but had not intermitted. The bubo was painful, and had increased in size. Some medicines were ordered, but I heard no more of her.

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I had occasion to see few instances of the transformation of other diseases into the plague, and have therefore selected this case as an instance of a complication by no means common. I regretted the not having an opportunity of observing the progress of this case, nor did I ever learn the event.

The absence of muddiness in the eyes, was not uncommon in young subjects.

C A S E XLIII.

A young man, an Armenian, was taken ill with pestilential symptoms, on the third of June, and four carbuncles broke out on his left breast, before night. He, at the same time, was seized with a looseness. The fever did not run high the two first days, nor were the symptoms, in other respects, very alarming; but, in the night of the 3d, he vomited several times, became comatous, and lost entirely the use of his tongue.

I received the above account the forenoon of the 4th day. The vomiting had ceased; but the looseness continued, and he still remained comatous. The carbuncles were spreading; the external heat was not excessive. Sinapisms were ordered to the feet, and some medicines to be taken internally, but with little expectation of success. He died the day following.

The carbuncles were the only eruptions, in this case. Their early eruption, accompanied with looseness, denoted danger; the accession of vomiting, and coma on the 3d, left little hopes of recovery.

C A S E XLIV.

A middle aged man, was taken ill in the night of the third, a bubo appearing in the left axilla. He was bled the morning of the 2d day.

At noon, he lost the use of his tongue, and became extremely restless. At bed-time, he took some powders of serpentary and absorbents. He was comatous most of the night.

On the 3d, he lay confused and drowsy. He had not vomited, and had little or no thirst. Sinapisms would have been proper, but the poor creature was destitute of assistance; and some medicines ordered this day, I suspect were not taken.

I was informed after his death, which happened on the 7th day, that he appeared to be rather better on the 4th and 5th, but a vomiting and diarrhoea supervening on the 6th, he grew every hour worse, till his death.

C A S E XLV.

A youth, the son of the preceding patient (Case XLIV.) was taken ill on the third of June, a few hours before the father, and a bubo was discovered in the

the left groin. The fever, in the night, ran high. He was bled early in the morning of the 2d day, being then cooler than in the night. At noon, a violent exacerbation came on, accompanied with diarrhœa. A little diascordium was added to the diaphoretic powders.

The 3d. The looseness still continued. He was extremely sunk, and exhausted, and beginning to be comatous.

The 5th. Hearing nothing from him yesterday, I suspected he was worse. He expired early this morning.

A diarrhœa was, in general, a bad symptom, and where it appeared early in the disease, rhubarb, or other lenients, in a few cases where I had an opportunity of trying, did not seem to be of much service in checking it.

C A S E XLVI.

A maid servant, about seventeen, was, on the second of June, seized with a slight shivering fit, followed by heat and thirst, which continued all night. Next day, a bubo was discovered in the right groin. She was bled at the arm, in the morning, and took a small dose of bezoar in the forenoon. Soon after taking the bezoar, she was seized with a vomiting, which continued, with little intermission, all night.

The 3d day, the incessant vomiting still continuing, she was extremely harassed and exhausted. A saline draught in the act of effervescence, had the desired effect, of putting a stop to the vomiting, but the fever continued, and at night she became comatous.

The 4th, she had not sweated; her skin was burning-hot; and she remained comatous. Sinapisms were applied to the feet, and a mixture with spirit. mindereri was given every five hours. She was roused somewhat by the sinapisms, but relapsed in the evening, and passed a very restless night. She did not sweat considerably, but had three stools. She was, at times, delirious, and, early in the morning, rose from bed, and walked about in the court yard.

I was informed, the morning of the 5th, about eight o'clock, that she appeared to have no fever, and that her hands, which before were dry, and burning, were now coldish. A mixture like that of yesterday was ordered, with the addition of a little diascordium: but she vomited immediately upon taking the first dose, and it was not repeated. She expired early in the afternoon.

C A S E

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A young man, by trade a baker, was in the forenoon of the second of June, seized with a severe vomiting. In the evening, a bubo appeared in each groin, and he lost the use of his tongue.

The 2d day, the vomiting continued, and he still remained speechless. He was ordered to be bled, and afterwards to take an effervescent saline draught, which stopped the vomiting, in consequence of which he was enabled to retain his drinks, but passed a very unquiet night.

The 3d. He still remained speechless; showed no disposition to sweat; his face was flushed, but his skin slightly feverish. He appeared much disturbed, and was incessantly writhing his limbs. Diaphoretic powders were ordered.

The 4th. Though he had perspired a little in the night, and had one stool, there was no alteration for the better.

The 5th. He had, in some measure, recovered the use of his tongue, which the attendants regarded as a good sign, but he still faltered much in speaking; he had not sweated in the night, the feverish heat was increased, and he seemed strongly disposed to slumber. He died in the afternoon.

I was assured that the buboes in the groin had both vanished on the 4th, and that a new one had appeared in the left axilla.

An Armenian silver-smith, aged about thirty-six, of a plethoric habit, and subject to the piles, as well as to hemorrhages from the nose, was several times, through the day of the first of June, sensible of slight shivering fits, and in the forenoon perceived a small swelling in the left groin, which however, as he said, was not painful. In the evening he became feverish, and passed a hot, unquiet night.

On the morning of the 2d day of the disease, he was assisted to walk to another house, at some distance, but, in the street, suffered from giddiness, and sickness at stomach. From thence he sent me the above account of his case.

He was ordered to be bled, and to take a draught with spirit. mindereri, at noon. In the evening, I found he had borne the bleeding perfectly well. The blood was of a high florid colour. The draught had produced no effect. He had one stool, mixed with a little blood from the piles. A mixture with the spirit. mindereri was ordered. He sweated a little in the evening, before beginning the mixture, but none through the night, which, however, he passed more quietly than was expected, and with little apparent fever. The patient

was under much apprehension, and greatly dejected. He had one stool in the night. CHAP. I.

On the 3d, he was more feverish all day, complained of weight and confusion in his head, and was much disposed to lie with his eyes shut, as if flumbering, but asserted he had no desire to sleep. The confusion of the head increased with the fever in the evening, and, at intervals after midnight, he was delirious. He took regularly of the spirit. mindereri. mixture through the night, but did not sweat. Had one stool.

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The 4th, he remained nearly in the same state, only that the bubo was much more painful. The ordinary diaphoretic mixture was substituted for the spirit. mindereri. From ten this forenoon till evening, he had been in a breathing sweat, but had suffered several irregular exacerbations of fever, in which the face became flushed, and he was slightly delirious. As evening advanced, he grew worse, drank much more, and was delirious most part of the night, often attempting to get out of bed.

The 5th day, his assistants flattered themselves he was better in the morning, that his head had been relieved by sinapisms, which were in the night applied to the feet, and that he was calmer, and more distinct, though still feverish and thirsty. The bubo gave him little or no pain. But this deceitful interval was soon succeeded by severe exacerbations, during which he raved incessantly, sometimes writhing his limbs, and screaming as if in excruciating pain, at other times stretched on his back, and muttering unintelligibly to himself. About noon, a cupful of blood dropped from his nose. In the evening he became comatous, and died after midnight.

It was observed in this case, what had been remarked on former occasions, that the thirst, without apparent increase of febrile heat, was immediately increased upon substituting the usual diaphoretics for the spirit. mindereri.

C A S E XLIX.

A middle aged man was seized with febrile symptoms on the twenty-ninth, of June, and a bubo appeared in the right groin. Next day two carbuncles were protruded, one on the right leg, the other on the upper part of the foot. He had no vomiting, and his stools were regular. The fever from the beginning was moderate, and he had suffered very inconsiderably from a confusion in his head.

I received the above account the 6th day, and the patient appeared to be in a fair way. The carbuncles were spreading.

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The 8th day, he continued to go on favourably. The foot was much swelled, and very painful. The black crust in the middle of the carbuncles began to separate at the edges. The exacerbations of the fever were very slight; and he had a stool once every two days.

On the 10th, the fever was much decreased. There was a very small discharge from the carbuncles.

The 13th, the crust of the carbuncles cast off. The bubo was advancing very slowly, and gave little pain.

The 17th, the ulcers were healing. The bubo was a little inflamed, but it seemed doubtful whether it would open. A plaster was applied instead of the poultice, being less inconvenient to the patient, who now began to walk about. The bubo opened of itself.

This is one of many cases wherein the symptoms were slight, and the sick recovered, without assistance from medicine; for to a few doses of diaphoretic powders, given after the 6th, I think no material effect can be ascribed.

C A S E L.

A young man, an Armenian, was on the twenty-fifth of June, seized with a vomiting, and other pestilential symptoms, a bubo appearing in the right axilla. Next day he was bled, and the right parotid swelled. On the 3d day, a carbuncle was protruded a little above the scrobiculum cordis. The vomiting, which had not been severe, ceased the first day. From the beginning to the 7th day, he had been daily subject to pretty severe exacerbations, in which he was sometimes inclined to be comatous, but never lost his senses. He had always a calm interval of two or three hours in the morning, though he had never sweated considerably. His body was regular as to stools.

The 7th, I received the above account. The bubo appeared to be advancing, the parotid remained hard, and gave little pain. He took a diaphoretic powder at bed-time, sweated a little, and passed a tolerably quiet night.

The 8th, he complained of pain, and a swelling of the right shoulder; but his principal complaint was from the carbuncle, which was now black in the middle, forming an eschar three-fourths of an inch in diameter. The powders were ordered to be taken night and morning, but were taken two days only.

The 11th, the carbuncle was suppurating, and every thing appeared to go on favourably. The bubo remained as before. He had at different times seemed disposed to sweat, but could never be prevailed on to encourage it, by proper covering.

The

The 13th day, he had walked abroad on the 12th, and on the 13th had eat a quantity of cucumbers and cherries, which brought on a looseness that continued two days. CHAP.
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The 17th. The crust of the carbuncle cast off. He was ordered the bark, but a few doses only were taken, and he could not be restrained from eating intemperately of fruit, and whatever else came in his way. 1762.
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The 21st. Yesterday two furuncles broke out on his neck, and were very painful. The carbuncle discharging copiously. He neither took medicines nor observed regimen.

The 24th, the discharge from the carbuncle was much lessened. The furuncles were very painful, and much inflamed, but were not pestilential.

I heard no more of this patient, but make no doubt he recovered, and I imagine the bubo discussed.

As he took no medicines before the 7th day, and after that took them very irregularly, little can be ascribed to them. The symptoms were more formidable than in the preceding case, but those of most dangerous portent were absent.

C A S E L I.

In a house where several persons lay sick of the plague, a young man, an Armenian, was taken ill on the seventeenth of June, but did not apply to me till the 11th day of the disease, and I found it then impossible to collect an exact account of what had happened in the first week. He had lost the use of his tongue the 7th day, and was now comatous. He had had no stool for four days. A bubo in the left groin had appeared in the beginning, and was at present a little inflamed externally. On the left leg was a large carbuncle, black in the middle. Diaphoretic powders were ordered. After taking the first dose he sweated, and appeared, in the evening, relieved by it. At bed-time he took another powder, and passed an unquiet night.

The 12th, he appeared to be better in the morning, and had recovered his speech. Through the day he was variably better and worse: sometimes sensible and calm, sometimes raving, and sometimes half asleep, muttering unintelligibly.

The 13th, he continued as yesterday; but the carbuncle began to suppurate. Diaphoretic powders were taken night and morning. He did not sweat, and had no stool.

The 14th, the fever was less, and his head much relieved, but he still continued restless. Having had no passage for six days, a laxative bolus was ordered to be taken next day. The bubo opened this evening.

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The 15th day, the bolus operated twice, but he continued hot and restless till night, when he was completely relieved by a profuse sweat.

The 16th. No remaining complaints, weakness excepted, and pain from the carbuncle, which had spread to a great extent, and yielded a copious discharge. The bubo discharged very little. The bark was ordered in small doses.

The 17th. He continues as yesterday, but had taken little of the bark. The carbuncle discharging freely.

The 18th. He had a shivering fit last night, followed by a fever that continued till morning. In this exacerbation a carbuncle was protruded on the left thigh, and a very painful furuncle on the neck. The bark was continued.

The 20th. Yesterday and this day, he had a slight paroxysm, preceded by a sensation of cold, and terminating in a moderate sweat, in less than two hours. The carbuncle and furuncle were advancing.

The 24th. The slight exacerbations, in the day, still continue. Yesterday the bubo threw out a large piece of putrid flesh. The new carbuncle beginning to suppurate; the furuncle not yet open.

The 28th. The feverish exacerbations in the day, still continue, but for these three days have not been preceded by shivering. The first carbuncle still discharging copiously. The furuncle very painful, but not yet open. He had taken no medicines these two days.

The 30th. After eating some cucumbers, he was seized with a looseness, attended with gripes, which, notwithstanding he took two or three doses of rhubarb, &c. continued to harass him for eight days.

On the 36th, the discharge from the first carbuncle still was considerable, the other eruptions were healed or healing.

This case is remarkable for the long continuance of the fever, as well as some formidable symptoms; it being very rare to find the symptoms described on the 11th and 12th days, so late in the disease. The sweat, on the 15th, appeared to me to be critical, in regard to the fever; but the return of the fever three days after, and the protrusion of a carbuncle on the 18th, was equally singular and unexpected. Was it the large, and long continued discharge from the carbuncle of the leg, that saved the patient?

C A S E LII.

CHAP.
I.

An Armenian baker, a young man, was seized the ninth of June, and on that and the following day, no less than eight carbuncles, or carbuncular pustules, were protruded on different parts, viz. three on the belly, near the navel, and five on the back: besides which, a bubo appeared in the right groin. The fever ran high at first, but was not attended with vomiting, and his body was regular.

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The 3d day, the fever was slight, and he had little or no thirst. Diaphoretic powders were ordered, and he sweated a little in the night.

The 4th, he continued as yesterday. The bubo was advancing. After this day he took no medicine.

The 6th, he had been very restless last night, but was calmer this morning. He had not sweated.

The 9th, he had been tolerably well these last two days. One only of the carbuncular pustules is black in the middle, and begins to suppurate; the others remain red, and dry.

The 13th, he was free from all complaints, except pain from the eruptions, and could walk about as usual, if not impeded by the bubo, which was considerably enlarged, and ripe for opening. The pustules remained dry, and shrivelled at the top, and much inflamed round the edges; but he obstinately refused to apply any thing to them.

The number of eruptions is remarkable in this case, but, being unaccompanied by formidable symptoms, they were less alarming. The whole was committed to nature; and the progress of the disease may be considered as altogether uninterrupted either by medicine, or error in diet.

C A S E LIII.

An elderly man; employed to provide necessaries from the market for the Consular-house, complained, on the fourteenth, of weariness, weight in the head, and a sensation like cold water running down his spine. A fever immediately succeeded; at night, a bubo was discovered in the left axilla, and his tongue faltered when he attempted to speak. He was bled next morning, and the remainder of the day was employed in procuring a lodging, the Aga of the great khane, where he usually slept, being apprehensive of infection, refused to let him remain longer there.

The 3d day, the account brought me this morning was, that he had passed a very unquiet night, but was now more composed. That he had no vomit-
ing

CHAP. I. ing nor looseness, that the faltering in his speech continued; but that the fever was much abated, and the bubo was very painful, both which were regarded as good signs. A diaphoretic mixture was ordered, of which only a few spoonfuls were taken. At noon, a severe exacerbation came on, in which the fever rose high, and he entirely lost his speech; he also had three loose stools. Towards the evening he grew rapidly worse, and expired in the night.

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The only formidable symptom in this case, at the beginning, was the faltering of the tongue. I suspected, however, from what I had often occasion to observe where I visited the sick myself, that the muddiness of the eyes, though not remarked, came on very early.

C A S E LIV.

An Armenian young man, who had taken refuge at the gardens, in hopes of escaping the contagion, found himself indisposed on the seventh of June, and discovered a bubo in each groin. He had no vomiting, but the febrile symptoms were pretty severe.

I heard of him, for the first time, on the 5th day of the disease. He then continued highly feverish; had much thirst; seemed greatly disposed to slumber, but was easily roused, and had all along retained his senses. He drank toast and water acidulated, and diaphoretic powders were ordered. He sweated a little, and was less than usually disturbed in the night.

The 6th, the fever was more moderate. The acidulated drinks refreshed him greatly, and he thought himself so much better for the powders, that he begged they might be continued. The evening exacerbation was not very severe, and he passed a tolerable night, sweating a little towards morning. The buboes seemed to advance.

The 7th. He was, in appearance, so much better this morning, as well as all day, that his assistants flattered themselves the danger was passed: but in the evening he became suddenly worse, and, much to the surprise of those about him, expired in the night.

The account of what happened the first days is very imperfect; but from the 5th, appearances were rather favourable.

C A S E LV.

A robust young man, on the seventh of June, was sensible of unusual lassitude, but having no suspicion of the cause, went to bed without making any

com-

complaint. Next morning, he awoke in a fever, and found a bubo in each thigh. He was bled in the forenoon, and in the evening took some bezoar, soon after which being seized with a vomiting, it continued, with short intermissions, till the evening of the fourth day.

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On the morning of that day, he lost near two cups full of blood from the nose, and half as much in the afternoon, while straining to vomit. He had passed very restless nights.

On the 5th day, he was highly feverish all day. Spirits of vitriol, with syrup of violets, ordered for acidulating his drinks, and acids were joined with the diaphoretics. He was furiously delirious most part of the night, attempted to get out of bed, tore his clothes, and laboured with his hands as if to catch objects floating in the air; towards morning, being exhausted, he became somewhat calmer.

The 6th, the delirium continued in a less degree. At noon he had a profuse hemorrhage from the nose, after which he became more tractable, but was still very unquiet, rambled, and picked the coverlet. In the night he was less furious than the night before, but had no rest. Towards morning he sweated a little. He took the diaphoretic mixture with spirit of vitriol, night and morning. Had one stool.

On the morning of the 7th, his body was covered with sweat, but it gave no relief, and the skin remained hot and burning. He was somewhat calmer, though still delirious. Sinapisms were ordered, but not applied. In the evening, I was informed that he lay as if deprived of all sense, and that he had a livid circle round the left eye. The inquietude increased in the night, and, after struggling several hours, he expired. His back, thighs, and hind part of the legs, became livid immediately after death.

The symptoms, in this case, were alarming from the second day. Hemorrhages were in general dangerous; but, in the present case, the tendency to putrefaction, and a dissolved state of blood, was in an uncommon degree. The sweat, which brought no alleviation, and continued with a hot burning skin, was always of fatal portent.

C A S E LVI.

A young Turkish lady, about fifteen, of a florid complexion, found herself indisposed, on the morning of the fourteenth of June. In the afternoon she vomited several times, and, in the evening, a bubo was discovered in her right thigh. This discovery alarmed her extremely, and from that moment she

H A P. she abandoned all hopes of recovery. Next morning, she was bled. The
 { I. fever never left her from the first, but increased and declined very irregu-
 1762. larly, and so extreme was the weight and confusion of her head, that it was
 June. with difficulty she could be prevailed on to raise her head from the pillow.
 She always, however, retained her senses, and knew distinctly every body
 about her. She had frequently sweated a little, but without sensible benefit
 from it. Her body was regular.

The 4th day. This morning, they had administered a large dose of bezoar,
 (15 grains) but it did not remain on the stomach, and the family sent to me.
 As I much doubted of their giving her medicines, I only ordered, by way
 of experiment, an acidulated cordial, grateful to the palate. Of this she
 took twice, but it remained only a few minutes on the stomach. In the
 night she was much disturbed.

The 5th. Her condition, this morning, was much the same as yesterday.
 A diaphoretic medicine was ordered, and it staid on her stomach. The noon
 exacerbation was severe, she lost her speech, and lay perfectly motionless,
 as if slumbering, but heard distinctly whatever was said in her apartment.
 The powders were repeated, and she passed a less unquiet night, sweating
 more than usual in the morning. The body continued regular as to
 stools, but in the evening the menses appeared, being eight days earlier than
 their time.

The 6th. She appeared, in the morning, to have been considerably re-
 lieved by the sweat, and was thought to be much better; but the slave, who
 attended her with most affectionate care, communicated a circumstance to
 me which prevented her joining so ardently in the hopes of the family. She
 said, that, from the first day, her young lady had been affected with a
 strange weakness of her limbs, insomuch that she appeared not to have
 the perfect use of them; for when desirous of shifting from an uneasy
 posture, in bed, she always applied to one of her attendants to assist in
 moving her arms or legs, as if incapable of moving them herself. This
 the slave remarked, with tears in her eyes, was so inconsistent with the
 sprightly temper of her lady, that she was sure it must be a very bad sign.
 The bubo was more painful, but in size remained as before.

In the afternoon she became worse in all respects, and the evening re-
 port represented her as writhing continually in bed, frantically tearing her
 night-dress, and screaming aloud as if in pain. Her extremities had once
 or twice grown cold, but soon recovered their heat again. The middle of
 the bubo was become livid. Her face had not lost its bloom, and her eyes

were

were rather sparkling than, as I expected, muddy. After struggling all night she expired in the morning.

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The head was much affected from the first, and the weakness of the limbs was a dangerous symptom. The bubo becoming livid, was an uncommon circumstance. The irregular appearance of the menses was, in general, unfavourable.

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C A S E LVII.

The wife of a Venetian merchant, aged about twenty-eight, of a plethoric habit, and at that time a nurse, received an accidental hurt on the nipple of her left breast, about the beginning of June, which gave a good deal of pain, attended with feverishness. On the 2d day she had a shivering fit, after which the fever increased, and, in the evening, she felt a pain in her right groin. This circumstance raising suspicion, she took some bezoar, and passed a very restless night.

On the 3d, she had a remission till noon, when, the fever increasing, she was bled. A bubo was discovered in the place where she had complained of pain the day before. The bezoar was repeated, and she passed another bad night, but was relieved somewhat, by a sweat, in the morning.

The 4th, she was calm in the morning, and the noon exacerbation was slighter than yesterday's. She complained of a weight, and confusion in her head. A diaphoretic mixture, with spirit of nitre, was ordered. The child being separated from her, she suffered from the milk in her breasts, and was restless in the night.

The 5th. Having sweated a little in the morning, she was tolerably calm, and remained so all day. A poultice was applied to the bubo, which seemed disposed to advance. She passed a better night than the preceding.

The 6th. She has had but little fever these two days. The bubo had made no progress. The body regular. The confusion of head less than before, but not gone. She complained of faintishness, and flatulencies in the bowels, which were relieved by adding some confection of alkermes to her former mixture. She passed a good night.

The 7th, she seemed unusually heavy, was averse to stirring, and remained remarkably silent, but grew more alert in the afternoon.

The 8th, she sat up some hours, and changed her clothes, which, by the Jews, is seldom admitted till danger is supposed to be over. From this time she had no return of fever, the bubo gradually dispersed, and, on the 18th day, hardly any vestige of it remained. She was purged twice or thrice with rhubarb.

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I.

C A S E LVIII.

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A Jewish young man, of a plethoric habit was, on the twenty-ninth of June, sensible of a shooting pain in the right groin, without finding himself in any other respect disordered. The day following, he went about his ordinary business, with no other inconvenience than that occasioned by moving the thigh. At night, he became feverish, and next day was bled. After the bleeding the fever increased, but was mitigated every four or five hours by gentle sweats, till night, from which time it pursued one tenour, notwithstanding the intervening sweats continued to return.

The fever, on the 4th day, was more moderate till noon, when he suffered a severe exacerbation, and in the night a second, both which declined with partial sweats. The bubo was advancing, and very painful. One stool.

On the 5th, he had two exacerbations as yesterday. In these the fever ran high, but he was not deprived of his senses.

The 7th, the exacerbations have been very slight these two days. The principal complaint was the pain of the bubo. He took no medicines, except the acidulated drinks.

The 16th. He has had no return of the fever as in the first week, since the 8th, but has only suffered febrile heats, in the evenings, which were ascribed to the pain from the bubo. About the 11th, the bubo had begun to inflame externally, and now (the 16th) appeared to be almost fully ripe. A gum plaster was applied instead of the poultice used hitherto, and the tumor broke about the 20th day.

Many cases similar to the present occurred in the course of the plague. The febrile symptoms ran high; but the moisture on the skin, and the morning remissions were favourable. After the 5th day, there was a manifest alteration for the better. The bubo here was the first symptom, the fever did not come on till after 24 hours.

C A S E LIX.

An Armenian woman, about twenty, of a healthy complexion, and in her sixth month of pregnancy was, on the eighth of June, seized with the usual pestilential symptoms, and complained immediately of pain in her left thigh. The fever was slight during the first two days, but the exacerbations on the third were very severe, and, that day at noon, she had a pretty considerable hemorrhage from the nose. She had vomited at intervals, from the beginning.

The

The 4th day, the fever in the morning was high, and she complained much of oppression at her heart. She was costive; but her pregnancy, as it had, it seemed, prevented her being bled, proved equally an objection to any laxative medicine, so that nothing more was ordered than the acid mixture for acidulating her drink. I told her relations, that abortion might probably happen, and advised provision to be made accordingly.

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The 5th, she remained all day much in the same state as yesterday, but at night, labour pains coming on, she was delivered of a living child, that survived only a short while. I could not exactly learn whether it bore marks of infection.

The 6th. By the accounts brought this day, she was much better than I expected. Her miscarriage being ascribed to the acid she had taken, they declined giving any more medicine.

The 10th, the bubo was advancing to maturation, and all other appearances were favourable.

Pregnant women, for the most part, miscarried, and very few escaped death. The vomiting, in this case, was not severe, nor constant, and several formidable symptoms were absent; but I did not expect so favourable a report on the 6th day.

C A S E LX.

An Armenian woman, middle aged, and eight months gone with child, was on the nineteenth of June, taken with febrile symptoms, a bubo at the same time discovering itself in the left groin. She was bled the next day, and the fever continued moderate till the 3d night, when she suffered a violent exacerbation, and a second bubo appeared in the right thigh. The fever did not decline towards morning.

The 5th, she had been highly feverish last night, and, though the fever since morning had declined, she remained heavy, confused, and much inclined to doze. A poultice of bread, milk, and soap, had been applied to the first bubo, which appeared to be advancing fast, the skin looking reddish. She took a diaphoretic powder at bed-time, passed a tolerable night, and sweated towards morning.

On the 6th, the fever was very moderate all day. The principal complaint was the pain of the bubo. The powder was ordered, but not taken.

The 7th, she continued mending.

On the 9th, the first bubo was considerably enlarged; the other was dispersing. The patient recovered favourably, the first bubo opening in the third week.

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This case furnishes an instance of a pregnant woman escaping a miscarriage, which seldom happened. The symptoms, from the beginning, were not formidable, and, after the fifth day, the fever was inconsiderable. She took one powder only, so that little can be ascribed to medicine; and I make no doubt, from what I have observed in similar cases, that the bleeding might have been safely omitted, yet I should certainly have advised it, from a persuasion that it could do no harm, and knowing that any disastrous event, particularly abortion, might possibly have been attributed to the omission.

C A S E LXI.

July.

A Christian woman, in the eighth month of pregnancy, was taken ill on the eighth of July, a bubo appearing in the groin. The fever ran high the day following, but the bubo was considered as an objection to bleeding.

On the 3d day, she was delivered of a child who lived twenty hours. No marks of infection appeared on the child's body; but I suspect it had been carelessly searched.

The 4th, she had been extremely uneasy in the preceding night, without any moisture on the skin. The lochia flowed copiously. Diaphoretic powders were ordered, but I considered her condition as highly dangerous. She was delirious most part of the night, and the skin remained parched, and hot.

The 5th, the lochia still continued in unusual quantity, and she was extremely exhausted. She had recovered her senses this morning, but complained much of oppression at the præcordia, and of faintness, and was incessantly shifting her posture. She expired in the afternoon.

Delivery hastened by the plague, was always attended with danger; but when the lochia flowed immoderately, I never knew any escape.

C A S E LXII.

June.

A young Jewess, in the second month of pregnancy, was, on the thirteenth of June, seized with the plague, a bubo appearing the same day in the right thigh. She was bled next morning, but the fever continued high, attended by frequent retchings. On the third day she miscarried.

Her relations applied to me the morning of the 4th day, but from their representation of her condition, I saw little ground for encouraging their hopes. She had been delirious in the night, and the fever still continued high. She had not lost much blood by the abortion, but appeared languid to the last degree,

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degree, and could retain nothing whatever upon her stomach. Saline draughts in effervescence were ordered, and oil of mace to be applied externally. From my receiving no report in the evening, I supposed she was very ill, and that she died that night, or next day.

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C A S E LXIII.

A Christian woman, about twenty, of a plethoric habit, and in the fifth month of pregnancy was, on the fifteenth of June, seized suddenly with a shivering succeeded by fever, and, in the morning, a bubo was discovered in the left axilla. The fever had been so slight the three first days, that bleeding was deemed unnecessary.

On the 4th day, the motion of the child, which had been unusually brisk, ceased at once; she found a weight in the womb, and in the evening observed a small discharge of blood. In the night she was very unquiet, and had several fainting fits.

On the 5th, the fever was slight, and her head clear; but she was still faintish, complained of her back, and she had a small watery discharge from the uterus, several times in the course of the day. An acidulated cordial was ordered, and abortion predicted.

I know not the event of this case. The woman lived in a distant suburb, which perhaps prevented their sending again next day.

C A S E LXIV.

A young Christian lady, in the ninth month of pregnancy, complained on the twentieth of pain in her throat, and behind the left ear. In the evening, the pain in the left parotid increased, and she was feverish. She had for several days before observed some of the cervical glands enlarged, and conceived the whole to be owing to cold. The fever was considerable the two following days; the pain of the parotid increased; she was very unquiet, especially in the night. She had had no vomiting, and her body was rather costive.

The 4th. The fever was moderate this morning, but afterwards increased, and in the night was attended with extreme inquietude, faintness, and oppression at the heart. Her head was confused, but she retained her senses, in the exacerbations.

The 5th. About ten in the afternoon, she fell into labour, and after two hours was delivered of a male child, without any marks of infection on

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CHAP. its body. In the evening she was extremely low, and exhausted, but perfectly sensible. The swelling of the parotid, and the axillary glands, were much increased. A cordial was ordered to be taken alternately with chicken broth.

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On the 6th, she expired early in the morning.

The symptoms in this case, at first, were not alarming. The stomach and bowels were not affected, and her head remained tolerably clear; but the anxiety, and oppression at the heart, in the exacerbations, denoted danger, and the advanced state of pregnancy left little room for hope.

C A S E LXV.

A robust young man, a groom, in the service of one of the English gentlemen, found himself indisposed the nineteenth of June, and next day discovered a small, hard swelling, in the left groin. He was bled at the arm, but a large quantity of blood being taken away, he fainted, and the swelling in the groin disappeared.

The 3d day, he complained of head-ach, and thirst, but the fever continued moderate till night, when it increased, and he became very unquiet. His drink was acidulated, and the usual diaphoretic medicines were ordered.

The 4th, he was pretty calm in the morning, and till eleven in the forenoon, when a severe exacerbation coming on, lasted above three hours, and declined with a considerable hemorrhage from the nose. The bubo, which was said to have vanished, re-appeared, and from that time advanced. In the evening the fever again increased, attended with excruciating head-ach, and a remarkable change of countenance. After midnight he became more composed, and sweated a little in the morning.

The 5th, he found himself much better, and expressed a desire for food, saying he was very well now, if it was not for the bubo, which was very painful. About noon, came on a severe exacerbation, in which he soon grew delirious, lost the power of speech, and picked the bed clothes; then sinking into coma, his breathing became so laborious, that he was thought to be in the agonies of death. Sinapisms were applied to the feet, but he permitted them to remain on only a short while after they operated. The fever began to abate about eight in the evening, and he passed the night much quieter than was expected.

The 6th, he was tolerably well all day, and passed a good night, but sweated very little. The medicines were continued.

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The 7th day, he found himself so much better this morning, that he wanted to leave his bed, and was impeded only by the pain of the bubo. At noon he suffered an exacerbation of the fever less severe, and of shorter duration, than that of the 5th, but a second bubo was protruded in the same groin. This night he enjoyed some repose, and sweated a little.

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The 8th. This day's exacerbation was pretty severe, lasting from mid-day till four in the afternoon. He rambled a little at times, and a third bubo was protruded near the two former. A gum plaster was applied to the first bubo, which was now slightly inflamed, and a poultice laid over all three.

The 10th, the exacerbations have been very slight for these two days, and he got some sleep in the nights. The first bubo was very painful, the others were advancing. His right eye was a good deal inflamed.

The 12th. He had had no fever these two days, except what seemed to arise from the pain of the buboes. He took a purging potion, this morning, which operated three times. The first bubo had grown to an enormous size, was highly inflamed, but did not feel soft. The plaster was changed for the simple poultice. An anodyne, at night, composed him for several hours. The 12th, the large bubo had opened unexpectedly yesterday, but discharged very little. One of the others was advancing fast. Small doses of bark were ordered.

The 15th, the second bubo broke yesterday, and both are suppurating favourably.

The 18th, the inflammation of the eye, which was nearly gone, again became troublesome. The third bubo ripening. The purging potion ordered to be repeated to-morrow.

The 20th, the purge yesterday had operated ten times, and extremely fatigued the patient. The anodyne, at bed-time, had however composed him, and he was this day in good spirits. From this time he continued to recover; the buboes, which together formed a swelling of enormous size, discharging copiously, through distinct orifices.

The 30th, the ulcers were still discharging.

The disappearance of the bubo after the bleeding, supposing the fact exactly as represented, was a singular circumstance, but a person not accustomed to search, may easily be deceived. I never myself saw an instance of the kind, and the re-appearance of the bubo, on the 4th day, renders it probable that the tumor had not totally disappeared. It was not uncommon to see the buboes very irregular in their progress, decreasing and

CHAP. and increasing in size, and more or less painful, in the course of the same
 I. day. But this alteration chiefly affected the skin, for the gland itself, when
 1762. once perceptible to the finger, remained permanently hard for some time,
 June. and its dispersion, so far as I could observe, was always slow. The hemorrhage from the nose, on the 4th, seemed to prove salutary, contrary to the usual effect of fluxes of blood, in the plague. The exacerbation, on the 5th, was very alarming, but the succeeding lucid interval encouraged hopes, which a similar remission would not have done earlier in the disease. The protrusion of the buboes, on the 7th and 8th days, was remarkable, as also the three coming to suppuration; for where there was a successive eruption of buboes, it was very seldom that all advanced to maturation.

C A S E LXVI.

A middle-aged man was seized suddenly with febrile symptoms, on the twenty-fifth of June, and the left parotid swelled in the night. The 2d day the fever went off and returned irregularly, but the head-ach remained constantly, though most violent in the exacerbations. He had no nausea nor retching. Was bled in the afternoon. In the evening, the fever increased, his head became confused, and he appeared drowsy, but answered distinctly when spoken to. He took a diaphoretic powder before midnight, and, by the nurse's account, enjoyed some hours of repose.

The 3d, he had not sweated, and was highly feverish without thirst. There was a strong tendency to coma, and he rambled at intervals. The swelling of the parotid had increased, and was more painful. In the night the coma increasing, sinapisms were applied to the feet. He had two stools, but did not sweat.

The 4th, he had vomited the morning dose of the powder, but his drinks remained on the stomach. His condition remained the same as yesterday, only that the parotid had increased, and the skin, in the middle of the tumor, was beginning to inflame. He died on the 5th day.

The parotid, when the sole eruption, for the most part denoted danger. In the present case, the patient sweated little or none, the disposition to coma came on early, and there were no favourable morning remissions.

C A S E LXVII.

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A middle aged man was taken ill on the twentieth of June, a bubo was discovered in the left thigh, and he was bled that night. He continued feverish all next day, but had no nausea, and his bowels were easy.

On the 3d day, he began to bleed at the nose, and the bleeding continued twenty four hours, without intermission, by which he was reduced to the last degree of weakness. From this time to the 10th day, that he applied to me, I could collect only in general, that he had daily suffered exacerbations of illness; was often disposed to doze involuntarily; and, though his head was much confused, had never lost his senses. He had never sweated considerably.

The 10th. The fever had never left him, and was sometimes pretty violent. The bubo remained hard, having made little or no progress. His weakness was extreme, having taken no other sustenance, from the first, but almond emulsion, and cucumbers. Diaphoretic powders were ordered, and chicken broth directed to be given in small quantities. Having had no stool for five days, a suppository was applied, but without effect.

The 12th. He had only begun yesterday to take broth, and soon after had two stools. He had been feverish in the night, without sweating. The bubo remained much as before. This night he sweated a little for the first time, since very early in the disease. The powders were continued.

On the 13th, an efflorescence of small red pimples appeared universally on the skin. From this time he took no medicine. He was long in recovering his strength; and the bubo coming slowly to maturation, opened in the fourth week.

The hemorrhage was remarkable in this case, and by reducing the patient so low, possibly protracted his recovery, and impeded the progress of the bubo.

C A S E LXVIII.

A young Turkish lady, of eighteen, complained in the morning of the twenty-sixth, of pains in her bones, and in the forenoon she had a shivering fit, succeeded by feverish heat. About mid-day the fever ran high, attended with a shooting pain in the right groin. She was bled at the arm. In the night, her head was much disordered, she vomited several times, and was very uneasy, without any disposition to sweat.

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The 2d day. The fever and retching still continued ; her principal complaint was a strange weight or confusion in the head. Two saline draughts, in a state of effervescence, were given, but both were immediately ejected, and indeed nothing remained on her stomach. Theriac. and oil of mace were applied externally, but the vomiting continued all night, with the addition of diarrhœa, after midnight. She had vomited the medicines they had given her, and retained what she drank a very short while only.

The 3d. She was this morning hot, thirsty, and extremely harassed by the vomiting, and looseness. Twenty grains of spec. diascord. mixed with a little conserve of roses, were divided into three portions, and one of them given every two hours. I was informed in the evening, that the vomiting and looseness having stopped, she found herself greatly better. She took a diaphoretic powder at bed-time. She was highly feverish and unquiet in the night, but growing calmer towards morning, she enjoyed some hours of repose, and awoke in good spirits.

On the 4th, the attendants considered her as greatly better, and informed me the bubo had advanced, and was very painful. Diaphoretic powders were ordered, and her drinks were acidulated. She had a pretty severe exacerbation in the afternoon, which declined somewhat in the evening ; but the fever soon increasing again, she was delirious most part of the night. Had two stools.

The 5th. She was more composed and sensible than in the night, but much sunk, and a coma appeared to be approaching fast. No moisture was observed on the skin. She sighed frequently, and seemed indifferent to every thing about her. A simple acidulated cordial was ordered to be taken occasionally. She died in the night.

A vomiting, when protracted to the 3d day, was in general an alarming circumstance, unless where other symptoms were very slight. In the present case the head had been early affected, the skin remained dry, and there was no favourable remissions in the morning. The flattering calm on the 4th day was not to be trusted, for it had been preceded by no kindly moisture on the skin ; and the severity of the subsequent exacerbation took away all hope of a favourable issue.

The diascordium was given on the 3d, chiefly with a view to check the vomiting ; and the quantity was so small, that, without supposing the vomiting and looseness about to cease spontaneously, it can hardly be thought capable of producing so sudden an effect in stopping both. I have, in cases of diarrhœa in the plague, sometimes joined rhubarb with the diascordium ;

but, besides remarking little benefit from such a mixture, there was an objection to rhubarb, except where given professedly as a purge; to wit, the drug being so well known in that country, that there was no disguising it, and the consequence of its being detected in composition, was the rejecting the medicine altogether, from a dread of its purgative quality.

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It may be remarked further on this head, that the discharge from the stomach and bowels have often much less of a bilious appearance in the plague than in ordinary summer fevers, and, as it appeared to me, might be checked more safely without the previous use of purgatives.

C A S E LXIX.

A man between sixty and seventy, was taken ill the twentieth of June, at night, and a bubo appeared immediately in the right thigh. Next day, five carbuncles broke out on the right leg. He had no sickness at stomach, nor had the fever, in appearance, rose high; but he had been almost constantly comatous from the first. He was bled the 2d day.

The 3d. The fever was moderate, and he had little or no thirst; but still continued comatous, and his skin dry. Camphor was joined to the diaphoretics. From this day I heard no more of him, till after his death, which happened on the sixth day.

It has been observed before, that an early and continued coma was in general a desperate symptom, and a frequent concomitant in the beginning of the pestilential season. The present defective case has been produced as an instance of that form of the distemper being met with at a late period.

C A S E LXX.

A middle aged man, without previous indisposition, complained, on the twenty-first, of lassitude, head-ach, and pain in the left thigh; but no swelling was discovered till the following day. He was bled the second day, being highly feverish; in the evening he retched several times, and was tormented all night with racking pain in the back.

On the 3d, a looseness supervened, which continued with such violence till the afternoon of the 5th, that he had in that interval above one hundred stools.

The 5th. On applying to me this afternoon, he was represented by his attendants as having little or no remaining fever; that is, that his skin was temperately hot, and he had no thirst; but that he was extremely weakened by the looseness, and the bubo had made no advance. Half a drachm of species

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 I. He was very unquiet in the night, but had only four ftools.

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The 6th. He feemed to be in every refpect better in the morning. He fuffered more than one exacerbation of fever through the day, but had only four ftools. The fame quantity of diafcardium as before, being joined with the pulv. contrayerv. a fourth part was given every fixth hour. He was extremely ill in the night; for the moft part delirious, his breathing laborious, a rattling in the throat, and his body bathed in clammy fweat.

The 7th. He was more compofed this morning, and had recovered his fenfes; but was unufually impatient and morofe. He had vomited the morning dofe, but retained the medicine at noon, and had no ftools. He fuffered a fevere exacerbation this afternoon. His drought was exceffive, his breathing laborious, the extremities coldifh, and on feveral places livid. He remained fenfible, but his countenance was much altered. Sinapifms were ordered.

The 8th. He had been furiously delirious all night, and in the morning his extremities were cold. He expired before noon.

Had I not in other cafes, where diarrhœa was a concomitant fymptom, and where no medicine whatever had been given, obferved the diftemper purfue the fame progrefs as in the prefent cafe, I fhould have been more apt to fufpect the diafcardium of having done harm. But the quantity given in forty-eight hours did not exceed one drachm of the fpecies, and the loofenefs was not ftopped at once.

The pain in the back, on the 2d night, was an unufual fymptom.

C A S E LXXI.

A Chriftian woman, between thirty and forty, complained on the twelfth of June, of laffitude, head-ach, and chillinefs, which were foon followed by feverifh heat, and a vomiting. In the night fhe was very unquiet, and a bubo appeared in the right thigh. Next day fhe vomited feveral times, and the fever fometimes was pretty high, accompanied with partial fweats; but the patient being of a delicate conftitution, and, in appearance, much exhausted by the exacerbations, it was judged improper to weaken her more by bleeding. The two fucceeding days, fhe continued to fuffer irregular exacerbations, accompanied generally with partial fweats. In the night of the 4th, fhe had been flightly delirious.

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The 5th day. She had recovered her senses this morning, and the external heat was temperate, but her eyes were muddy, and her countenance much altered; she was perpetually changing posture, and suffered great oppression at the præcordia. She complained of much confusion in her head, that she could not distinctly discern objects, and expressed an apprehension of growing blind. Sinapisms and diaphoretic powders were ordered. She took one of the powders at noon, part of which was immediately ejected; but she soon after fell into a sound sleep, and awoke, after three hours, much refreshed, her looks were mended; and she found herself much better. The bubo did not give her much pain. In the evening the inquietude returned, she was very hot, and disposed to ramble; but after the application of sinapisms, and taking one powder, she became more composed, and passed the remainder of the night tolerably.

The 6th. Notwithstanding some repose last night, she was this morning very ill. The fever had declined, but the oppression at the heart was excessive, and she was perpetually changing posture. The attendants, however, remarked that her eyes were not so muddy as yesterday. The powders were given every six hours. The inquietude continued till ten o'clock, when she took one of the powders, soon after which she fell asleep, and reposed three hours, in a breathing sweat. The inquietude returned in the afternoon, but was calmed upon taking another of the powders; and the night exacerbation seemed also to be remarkably alleviated, upon taking a third powder. The fever rose high in the night, but though she did not sleep, she lay quieter than usual.

The 7th. She was rather better in the morning, though she still complained of extreme anxiety, and of confusion in her head. The bubo was advancing. From mid-day she suffered several exacerbations, attended with thirst, writhing of the limbs, and delirium. The powders had not the same effect as before. By the accounts brought me in the evening, the lower extremities were cold, and she had all the appearance of a person in the last agony; but after remaining an hour in that state, the limbs recovered their warmth, and the fever, which had subsided, returning, raged all night. She had one stool, but did not sweat.

The 8th. She had recovered her senses this morning, but was extremely low, and her countenance ghastly, and dejected. In the powders hitherto, serpentry had been substituted for contrayerva, but this day the usual contrayerva powders were ordered. Sinapisms also were ordered to be applied to the feet. She was rather better through the day than yesterday, but was equally ill and restless in the night.

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The 9th day. She was so weak that upon raising her in bed, the whole body was seized with convulsive tremblings. She was quite sensible, and complained as before; but she lay quieter in bed, which was ascribed to inability of motion, rather than to the being more composed. The bubo more painful. She sweated profusely in the night.

The 10th. After a short intermission, a second sweat broke out, and she again sweated as profusely as in the night. She found herself extremely exhausted after this last sweat, but in every other respect much relieved. The bubo advancing. The powders were continued night and morning.

The 11th. All appearances were favourable.

The 13th. She had been subject to feverish heats at night, and deprived of rest by the pain from the bubo, now swelled to a prodigious size; but in the day-time she was very well, and her appetite returning. Stools regular.

The 15th. The bubo extremely large, soft, and highly inflamed.

The 16th. The bubo broke off itself this day, and discharged five or six small tea cup-fulls of matter.

This woman had a favourable recovery. The bubo continued discharging copiously, by the last accounts I had of her, which was about the tenth of July; at which time her husband who, from the beginning, had been her nurse and attended her with singular care, was himself seized with the distemper.

The vomiting, in this case, was not severe; and, though the head was early, and constantly affected, there was a greater tendency to delirium than to coma. The most violent exacerbations, accompanied with very alarming symptoms, commenced at that period when, in general, the distemper, where it terminates happily, takes a favourable turn. In this respect the present case furnishes an exception to a general observation. It is remarkable also, on account of the critical sweats, so late as the 9th and 10th days, and for recovery from a complication of symptoms which, in ninety-five out of a hundred pestilential cases, denotes inevitable death.

I have marked the effects of the serpentary powders exactly as reported to me, without however, in my own mind, ascribing the efficacy to them in so great a degree, as the patient and her attendant did. They were changed for one, amongst other reasons; namely, that they appeared often to occasion more thirst: as to their efficacy in producing a sweat, I could observe no material difference; and, indeed, placed little to the credit of either, where there was not a natural tendency to that secretion at the same time.

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A Jew, a young man, of a slender, weakly constitution, found himself a little indisposed on getting out of bed, the morning of the thirtieth of June, but it did not prevent his going to the *bazar*. While employed in his business, he found his disorder increase; his head began to ach, and he felt a shooting pain in the left axilla. Alarmed by this last symptom, he had recourse to a little bezoar mixed with his own urine, a remedy in high repute in that country. Upon his return home he was bled at the arm. The fever increasing at night, continued violent till the day following at noon, when a sweat broke out, in which he lay bathed all night.

The 3d day, he was much fatigued, but appeared, in other respects, to have been relieved by the sweat. His bowels were easy, having had two stools yesterday. The bubo was more painful. This calm, however, was of short duration; a severe exacerbation came on in the afternoon, and, being succeeded by others at short intervals, he passed a very unquiet night, without any consolatory sweat towards morning.

The 4th. The bubo was very little enlarged, and remained hard and uninflamed, but the skin around the tumor, to a considerable extent, was swelled, inflamed, and so intensely painful, that he could not bear the slightest touch. The fever, which was moderate in the morning, increased in irregular exacerbations through the day, and he was much disturbed in the night. The extremities of the toes, and fingers, were cold most part of the day, even in the exacerbation of the fever.

The 5th. He was seemingly composed, for a short time, early in the morning. The fingers and toes remained cold as yesterday. The inflammation round the bubo was considerably increased. About nine o'clock, livid petechiæ struck out on the breast, and neck, he was tormented with unquenchable thirst; and soon became delirious. In the evening, the legs and arms were cold, and clammy, and he muttered incoherently, without ceasing. The swelling in the axilla seemed to have subsided since morning.

He died in the night.

The profuse sweat on the 2d day, happened too early in the disease to prove critical; the relief it brought was of short duration, and the subsequent exacerbations were more severe than those preceding.

The coldness of the fingers and toes, on the 4th, the painful inflammation of the parts contiguous to the bubo, and the livid petechiæ on the 5th, were uncommon circumstances.

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A young Jewish lady, then nursing her first child, five months old, complained on the fifteenth of June, of a sharp pain in the left axilla, which was not, she said, constant, but went off and returned suddenly. She grew feverish at night, and the woman who searched her, thought she felt a small hard swelling, deep under the skin. Her case being immediately suspected, they had given, (I believe, in urine) a dose of bezoar, which did not remain on her stomach.

The 2d day. No tumor could be perceived this morning, but she still complained of pain in the axilla, as well as of violent head-ach. Being of a plethoric habit, she was bled at the arm before they sent to me. The fever was very moderate in the evening, and in the night. She took spirit. min-deri at bed-time, but did not sweat.

The 3d, the bubo could be felt by the finger, hard, and deep seated, the skin puffy, not tense. A carbuncle appeared on the left breast. She complained of pain at her heart, but the fever was slight, she had little or no thirst, and passed a calm night. Her medicines were a diaphoretic powder night and morning, and an acidulated cordial; but she did not take the night powder.

The 4th, she found benefit from the cordial. She had a slight exacerbation at noon, which declined with a gentle sweat. In the night, she was feverish for several hours, but towards morning was relieved by a sweat. She had one stool.

The 5th, the carbuncle had spread, and suppuration was begun round the edges of the crust; the bubo was painful, but had not advanced.

The 8th, the fever had been very slight, for these two days; she had not sweated considerably, but the skin was soft, and moist. The crust of the carbuncle cast off. A powder had been given every night.

After the 8th, she remained free from fever. She was purged on the 17th, and the carbuncle healed soon after. The bubo discussed. About the 20th, she went to the bagnio, and in the fourth week, took her child, which had been sent to nurse, to her breast again, for she had taken care, by drawing the breasts, to preserve her milk.

This may serve as an instance of that less malignant form of the plague, with which numbers were infected this year, in the months of June and July, and from which many recovered without any internal medicines whatever. Most of them, I believe, were bled at the beginning; but

little

little material difference, in the progress of the disease, was observed in cases where bleeding had been omitted. CHAP. I.

C A S E LXXIV.

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A young man, a Christian, was slightly feverish, the evening of the twenty-second of June, and discovered a bubo in the left thigh. Next day he complained of head-ach and giddiness, and the fever, increasing, rose pretty high in the night. A carbuncle was protruded on the belly. He was not bled.

On the 3d day, he was composed in the morning. The exacerbation at noon was slight, and went off in a gentle sweat. He took a powder at night, and rested several hours.

The 4th. This morning he complained of nausea, and loathed all kind of food. He was advised to drink warm water, and afterwards to take a saline draught, but being relieved by the water, though he did not vomit, he did not take the draught. At four in the afternoon, he had a pretty severe exacerbation, which declining in the evening, he passed a tolerable night.

The 5th. The carbuncle was spreading; the bubo had made little advance. All the other appearances were favourable. He had not had a stool, but found no inconvenience from want of passage. A calm night, the fever being very moderate, and the skin moist.

The 6th. All went on prosperously. The carbuncle was suppurating; the bubo seemed disposed to discuss. He sweated in the night.

The 7th. He was almost free from fever. He had a stool yesterday, and another to-day. The powders were taken night and morning.

The 9th. He had been very well these two days. The bubo, since yesterday, was more painful, and had become more swelled. He took a powder every night, to the 13th. The bubo advanced, and broke about the 20th.

Had this patient been bled, the slow progress of the bubo would have been ascribed to the evacuation being made at an improper time; for bleeding, it seems, was not proposed till the 2d evening, and then omitted on account of the bubo having made its appearance twenty-four hours before. But I have no reason to think the bleeding would have made any material alteration; and have often remarked, in cases similar to the present, that the progress of the disease, as well as of the eruptions, seemed to be little affected by that evacuation, made within the first forty hours. I seldom had occasion to see it made later.

A young man, brother to the patient (Case LXXIV.) was feverish on the twenty-eighth of June, and discovered a bubo in the right thigh. The fever continued all next day, but being slight, bleeding was thought unnecessary.

The 3d day. The fever ran pretty high; he seemed much disposed to slumber, and, in speaking, his tongue faltered. Diaphoretic powders were ordered. He passed rather a restless night, and had sweated very little but his skin was not parched.

The 4th, the bubo was hardly perceptible to the touch; but the scrotum was swelled, and painful. The exacerbations were slight, and in the night he sweated a little.

The 5th, he had little or no fever, and remained calm all day. The scrotum better.

The 6th, he remained, as yesterday, has had a natural stool daily since the 4th. From this time he took no medicine. About the 9th the bubo became more painful, and began to advance. Its progress was then pretty quick, for it opened toward the end of the third week.

This was another slight case, where bleeding was omitted, and where the bubo made little progress before the 9th day. Appearances on the 3d day were not so favourable as in the preceding case; but they soon mended. The swelling of the scrotum was unusual.

*C A S E LXXV.

A young man, a Jew, finding himself, on the twenty-third, indisposed with the head-ach, and other febrile symptoms, was bled in the afternoon. Next day, and the day following, he was well enough to attend his business in the *bazar*, and thought himself perfectly well. On the fourth he again became feverish, and a bubo was discovered in the right groin. The fever continued in irregular exacerbations the two following days. He had no nausea, and the bowels were easy.

The 7th day. The fever was very slight, though he had never sweated considerably; but his head was confused, and he was much inclined to doze. The bubo was very painful.

The 9th, he continued much the same as on the 7th. Passed two or three worms by stool. He had taken a few powders the three last days, but now left off medicine. The bubo began to inflame externally about the 11th, and opened the end of the 3d week.

The

The only remarkable circumstance in this slight case, was the calm interval between the first and fourth days; supposing the first fever to have been really pestilential. It was uncommon, at that time, for the bubo to be so late in making its appearance.

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C A S E LXXVI.

A Jew, an old man, who had been employed, on the twenty-fifth of June, in surveying the Jewish burial ground, found himself, upon his return home, early in the afternoon, much heated; but ascribing it to the having been exposed several hours to the sun, he drank two cupfuls of brandy, by way of cordial. Towards evening, a fever declaring itself, he was bled. The fever, during the two following days, proceeded in a pretty equal tenor, without those irregular changes common in the plague, which, joined to the absence of eruptions, led the women to imagine his distemper was a bilious fever.

The 4th day. This morning, before applying to me, he had taken a glyster, that operated twice. The fever ran high; the tongue was yellowish, and he complained of a bitter taste in the mouth. At night, he felt a pain in the left thigh.

The 5th, the fever remained as yesterday. The bubo small, deep seated in the thigh, and very painful. He was restless in the night, and did not sweat. Had two small stools.

The 6th, there was no material alteration, only that his head was more confused. In the night he became delirious; but sweated a little early in the morning. The diaphoretic powders had been taken night and morning hitherto; this day they were given every eight hours.

The 7th. He was disposed to be comatous in the morning. The bubo was advancing. He was so ill all day, as well as in the night, that the attendants, as their custom is when they think danger imminent, abstained from giving remedies. Towards morning he fell into a profuse sweat.

The 8th. He found himself much relieved.

The 10th, the fever continued still, but in a slight degree. The bubo beginning to inflame externally. He took no medicine after the 6th. The bubo opened in the 4th week.

In this case the bubo did not appear till the 4th day, which was much later than usual at this time (see Case LXXV). Another remarkable circumstance was the equal course of the fever. The morning remissions were very indistinct; the exacerbations less severe than usual in the plague.

CHAP. The profuse sweat, in the night of the 7th, seems to have been critical, but
 I. it may be remarked, that he had taken no medicine that night.

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C A S E LXXVII.

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A young man, about three and twenty, of a delicate constitution, was seized on the twenty-sixth of May, at noon, with a shivering, succeeded by a fever, a violent head-ach, and he vomited some greenish bile, at two or three different times. In the evening he was bled largely, but continued highly feverish all night, and his head was much disordered.

The 2d day. He had not sweated, and the fever was very little abated; but his principal complaint was of a confusion in his head. He had been searched, but no eruptions were discovered. Nitre was joined with the diaphoretics, and fifteen grains of ipecacoanha directed to be taken in case of retching, or a bitter taste of the mouth. He had a short exacerbation at noon, preceded by a slight coldness of the extremities. He took the diaphoretics, but, having no nausea, omitted the emetic. About an hour after the evening dose, he retched and brought up some phlegm, upon which the emetic was given, and operating five or six times, brought off a quantity of bile. He was tolerably composed in the night.

The 3d. He complained chiefly, this morning, of a dull pain in the forehead. The fever was rather less; the tongue, before white, was now yellow in the middle, and whitish at the edges; the urine, before yellow, was this day red. At noon, the hands, for a short while, were coldish, but the succeeding exacerbation was slight. In the evening he became very unquiet, could not be persuaded to remain in bed, and walked about the room. Had two stools.

The 4th, the head-ach and fever continued; the face, by turns, was flushed and pale. At noon the head-ach and fever increased, without any preceding coldness. Cupping glasses were applied to the shoulder, and a few drops of blood distilled from the nose, by which the head was somewhat relieved. He was quieter, in the night, than he had been throughout the day, and had five small stools, between bed-time and morning. The attendants, by my direction, had searched daily for eruptions, but none were discovered till this night, when a bubo was found in the right thigh, and a carbuncle on the calf of the leg.

The 5th. He appeared this morning more composed. The fever slight, the tongue very white; but the thirst excessive. The nitre was omitted. The water, or toast and water, were acidulated. At noon he suffered a very severe exacerbation. Another carbuncle was discovered on the left leg, and

in the evening, a second bubo in the left thigh. He passed a very disturbed night. CHAP. I.

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The 6th day. The fever continued moderate all day, without any considerable exacerbation, but the patient was, at times, extremely heavy and sluggish, and often showed an inclination to retch. His medicines were continued as before, being a scruple of contrayerva powder, with confection of alkermes, every sixth hour. In the evening he became worse, and passed a very restless night, but sweated profusely in the morning. He had one stool. The urine was clear and of a straw colour, in the evening.

The 7th. He was greatly fatigued and dejected after the sweat. The second bubo having decreased in the night, could hardly be perceived; the first was very little advanced. The first carbuncle became black in the middle yesterday, and was spreading. A few drops of blood fell from the nose. He had a very violent exacerbation at noon, attended with flushings in the face, anxiety, and the comatous disposition, which declining at four o'clock, he remained tolerably calm till eight. The fever then returned, but was soon mitigated by a profuse sweat, which lasted near two hours. In the night he sweated a second time, and enjoyed several intervals of sound repose.

The 8th. He was not so much relieved this morning, as was expected, by the sweating; the fever still remained, with much confusion of head, and inclination to doze. The first bubo appeared to be double, the superior gland round, and painful, the inferior (larger and of an oblong shape) hard, and indolent. The first carbuncle large, and the whole leg inflamed. The second carbuncle not yet black, but a dusky matter oozed from it. At noon he had a very severe exacerbation, and sweated twice in the night, but less profusely than the night before.

The 9th. This morning, though excessively weakened by the repeated sweats, he was manifestly better. Huxham's tincture with a little elixir of vitriol, was taken every six hours, instead of the former medicine. A slight exacerbation came on at the usual time. The first dose of the tincture was given at two o'clock, and he was soon after relieved by a gentle sweat. He had a second slight exacerbation in the evening, and sweated in the night.

The 10th. He complained of head-ach and thirst, but the fever was moderate. The first bubo advancing, and a copious discharge from both carbuncles. Had two slight exacerbations, which terminated in a gentle diaphoresis. The body regular. He passed a tolerable night.

The 11th. About nine this morning, his legs became cold from the knees downward, and remained in that state five hours, when a hot fit succeeded, accompanied with thirst, inquietude, and oppression at the heart.

Towards

CHAP. Towards evening he became gradually better, and had some repose in
 I. the night.

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The 12th day. This morning his legs again became cold, and a fever succeeded, as yesterday, but the paroxysm was much slighter and shorter. He passed a tolerably calm night.

The 13th, he had a return of his usual paroxysm, but it was over by noon. The bubo advancing, and much more painful; the carbuncles beginning to heal. He was in good spirits all the afternoon, but in the evening was dreadfully alarmed, by the sudden conclamation of the women in an adjoining house, where a person had just expired in the plague. This incident effectually prevented repose, and made such an impression on his spirits, that he made urine above twenty times in the course of the night.

The 14th, he had no cold fit, but, at the usual time of its access, he became dull and heavy, and continued so till noon. A purging potion ordered for to-morrow.

The 16th. The potion operated three times yesterday. The bubo beginning to be red externally, but was not very painful. Tincture of bark ordered to be taken twice a-day.

The 18th. He was recovering. The carbuncles continued to discharge, but the redness of the bubo was gone off. A bitter taste in the mouth, and the tongue white. A dose of rhubarb and calomel ordered for to-morrow, and an opiate at night.

The 21st. The rhubarb had operated five times. The bubo again appeared as if it would come forward. No complaint remained, except weakness.

This patient, in the fourth week, was harassed with an itchy eruption all over the body, more especially on the scrotum and the glans. The rhubarb with calomel was repeated two or three times. The bubo came at length to maturation, and opened in the fifth week.

This case, though not attended at first by the more formidable symptoms, was one of those which deviate irregularly from that form of the distemper which often terminates happily; and on that account, as well as from the severity of the exacerbations after the 5th day, had at several times the appearances of imminent danger.

The eruptions did not appear till the 4th and 5th days; the profuse sweat on the morning of the 7th, did not alleviate, as usual, nor did the subsequent sweats prevent the return of very severe exacerbations; it was not till the

5th day that the patient could be pronounced better. The paroxysms ushered in by coldness of the legs, on the 11th, 12th, and 13th, were also unexpected and irregular. The slow and variable progress of the bubo was no uncommon circumstance, but was usually met with where a less constant degree of fever attended, than in the present case.

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Three other persons were infected successively in this distressed family, the father, the mother, and a sister; and as the accounts brought me were more distinct than usual, and directions more punctually obeyed, I have given a place to their cases in detail.

C A S E LXXVIII.

An old man, the father of the youth, Case LXXVII. found himself indisposed, the thirty-first of May, with a nausea and aversion to all kinds of food, and discovered a bubo in the right groin, which last circumstance he concealed from the family for several days. On the 3d day he became feverish and restless. On the 4th he was every way better, but finding himself worse again the day following, he then owned the having a bubo.

The 5th day. The fever was slight. Powders composed of serpentary and diaphoretic antimony were ordered to be taken night and morning. The bubo appeared to be advancing, and a gum plaster was applied to it, but the pain was so increased by the plaster, that it remained on only a few hours. He was less feverish this night than the night before.

The 6th. He remained as yesterday. The skin of the bubo reddish. Having had no stool for several days, a little sublimated nitre was joined to the powders.

The 8th. He had been hot and unquiet in the nights, and sweated very little. Had one stool yesterday, and three to-day.

The 10th. The bubo was advancing. The looseness still continuing, though inconsiderable, the nitre was left off, and he took only some contrayerva powder at bed-time. In the night, he was very restless, and had five stools.

The 11th. He was much sunk by the looseness. Ten grains of spec. diascord. were joined with the contrayerva, and after the first dose he had no more stools. The fever in the night was very slight. The redness of the bubo, mentioned on the 6th, having been produced merely by the plaster, had disappeared, and the swelling had made very little advance, but it again looked reddish this day.

The 14th. He has had always a little fever in the nights. His medicines were powders with serpentary, instead of contrayerva.

The

CHAP. The 16th day. The bubo appeared disposed to discuss. Having had no
 I. stool for three days, some rhubarb and crem. tartar were ordered for to-morrow.

The 20th. He was recovering, but still very weak. His wife and daughter
 1762. were taken ill about this time, which obliged him to come abroad, and he
 June. continued coming daily for medicines for them. The bubo, after varying
 appearances several times, came at last to maturation, and opened about the
 34th day.

This man had no fever till the 3d day after the appearance of the
 bubo, and no complaint except the loathing. The quantity of stibiated nitre
 did not exceed one scruple in the twenty-four hours, and yet it seemed to
 affect the bowels.

The variable and irregular progress of the bubo was not uncommon in
 old subjects.

C A S E LXXIX.

The wife of the patient, Case LXXVIII, an elderly emaciated woman,
 who had constantly nursed her son and her husband in their illness, com-
 plained herself in the evening of the eighteenth of June, of a sharp burning
 pain in each groin, but could perceive no swellings. She was feverish all
 night.

The 2d day. She was less feverish this morning, but towards noon the fever
 increased, together with the burning pain in the groins, and was accompanied
 with weight in the head, and drowsiness. She took a diaphoretic powder,
 and continued nearly in the same state all night.

The 3d. She was better for an hour or two this morning, but soon be-
 came feverish, and slightly comatous, as before. A swelling in the left groin
 was now visible.

The 4th. The fever continued, and the comatous disposition increased.
 The left bubo was advancing; the right was barely perceptible to the touch.
 In the evening, a carbuncle was protruded on the right thigh near the bubo.
 Her tongue was white. She was delirious at intervals, but for the most part
 lay in a state of drowsiness. Sinapisms were applied in the night, after which
 she became more lively.

The 5th. The fever still continued, but her head was clearer, and she
 was less drowsy. The carbuncle had become black in the middle.

The 8th. She had remained much the same as on the 5th day. The
 fever was very moderate, but she still complained of confusion in her head.
 She had not sweated. The carbuncle was suppurating favourably. She had
 a stool by means of a suppository.

The

The 12th day. She was recovering slowly, but the bubo remained hard and indolent. A bolus of rhubarb and crem. tartar, which she took this morning, operated six times, and fatigued her greatly. An anodyne was given at night.

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The 21st. She has been harassed with a looseness ever since the 13th, from which she was relieved by repeated doses of rhubarb and diascordium. The right bubo was well advanced, inflamed externally, and soft.

The 24th. The bubo opened this day. Her recovery proved tedious.

So long a continuance of the comatous disposition, was the only alarming circumstance in this case; for there was neither vomiting, looseness, nor coldness of the extremities. Though she did not sweat, the morning remissions were pretty distinct and regular. The burning pain, so long before the appearance of the bubo, was remarkable. The diarrhœa here seemed to be brought on by the purge; and indeed, in many cases, the bowels seemed in so irritable a state, that great caution was requisite in the use even of the most lenient purges: but it may be remarked that the looseness in the third week, did not retard, but rather promoted the progress of the bubo.

C A S E LXXX.

A young woman, about twenty-five, of a delicate constitution, and subject for several years to a spitting of blood in the autumn, was alarmed on the sixteenth of June, by a sensation of cold in the spine, which, after continuing somewhat less than an hour, went off without being succeeded by head-ach, or fever. The same sensation returned regularly about noon, for three or four days. She was the daughter of the old man (Case LXXVIII.) and had constantly been employed in coming twice a day from a considerable distance, to bring accounts of her brother and father, and to fetch medicines, while her mother remained at home to nurse them. On the 3d day, she perceived a small swelling in the left axilla, but concealed it till the day following, and continued walking about as usual.

The 4th day. The usual chilly fit was this day followed by a confusion in her head, and a pretty strong fever. In the evening, she lost twelve ounces of blood from the arm. At bed-time, she took a diaphoretic powder, but immediately threw it up, complaining that it burned her throat. The morning powder remained on her stomach.

The 5th. The fever was very moderate, but she complained of her head, and of a pain a little above the shoulder. No tumor could be felt in the

m

axilla.

CHAP. I. axilla. The tongue was white. She had several irregular exacerbations in the day, and also in the night. Some pectorals were joined with the diaphoretics.

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The 6th day. Upon examining the left shoulder, a small hard tumor was discovered, about two fingers breadth above the posterior part of the clavicle.

The skin was not inflamed, but the tumor, as well as the whole of the left arm were very painful. She slept little in the night, but lay quiet.

The 7th. The menses appeared, and she remained tolerably calm till noon, when she was seized with a violent pain in the left side. The pain of the tumor increased in the evening, darting sometimes down toward the axilla, and sometimes up toward the ear. She was very unquiet in the night.

The 8th. This morning, the right hand remained cold for near an hour. The fever was moderate till about ten o'clock, when it increased, and was attended by head-ach and perpetual inquietude. The pain in the left side was very troublesome, and she complained of much oppression at her heart. There was no visible disposition to sweat. The powders were continued, and a cordial ordered.

The 9th. The left parotid, which had begun to swell yesterday, was more swelled and painful, and the face, throat, and neck swelling also, it was with difficulty she could open her mouth, or swallow. A blister was applied to the neck, and a little nitre added to her barley water. She passed a bad night. The blister operated well, but had given much pain. She had one stool by means of a suppository.

The 10th. The swelling of the face had rather diminished since last night, but that of the parotid had increased. The cervical glands swelled, but were not inflamed externally. The axillary bubo had not advanced. She passed a hot, restless night; the pain of the tumor, as well as of the parotid, excessive, and the side very troublesome.

The 11th. She remained as yesterday. A simple poultice was applied to the swellings. She complained of head-ach, oppression at the heart, and the fever ran high. The tumors, after the application of the poultice, were, in the night, rather less painful.

The 12th. She was all yesterday much in the same way as on the 11th, but complained of pain in the right thigh and leg. On account of the increased swelling of the face and the parotid, it was with the utmost difficulty she could swallow. The fever was high, and the inquietude incessant. Having had no passage for several days, a laxative glyster was ordered which, operating once, greatly relieved her.

The 14th. The swelling of the face was somewhat less. A purging potion, taken this morning, operated six times, and fatigued her a good deal, but an opiate taken at bed-time procured her some repose.

The

The 15th day. The swelling being decreased, she could swallow better than yesterday. The axillary bubo and the tubercle had made no progress. The medicines were continued as before the purge.

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The 18th. The swelling of the face was considerably diminished, and the other tumors less painful. The fever, in the nights, was very considerable. Half a dram of rhubarb, and as much cream of tartar, ordered for to-morrow. This evening she spit up a cupful of blood.

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The 20th. The rhubarb had operated three times; and she was recovering favorably; all the tumors were discharging.

The 25th. The purge was repeated yesterday. For these three last nights she has been feverish, and much harassed, by a violent itching all over the body, which was covered with red pimples. Hardly any thing remained visible of the axillary bubo, or of the tumor. The purging powder was repeated once or twice; and she gradually recovered, but was a long while in recovering her strength.

The fever continued long, in this case, but there were few other formidable symptoms. The parotid did not swell till the 9th day, and her condition, for two or three days after, was rather alarming. The blister seemed to be of service; but was a remedy seldom admitted. The purging so early in the disease, was also very seldom admitted, but seemed likewise to be of service.

The tumor on the shoulder was one of those spurious buboes mentioned before (Case XXXI). It differed from any species of furuncle or bile, the skin, as in the bubo, seldom showing signs of inflammation till after several days.

C A S E LXXXI.

A Christian girl, about fourteen, was taken with febrile symptoms on the twenty-second of June, and complained immediately of pain in the left axilla. She was not bled, but took some bezoar at night. Next day, a carbuncle was protruded on the left arm, after which the fever became more moderate, and was so slight through the three succeeding days, that she was considered as being in a fair way of recovery.

On the 6th day, the fever increased, and a very painful tumor appeared under the left breast. From this time the exacerbations became more severe.

On the 7th, she lost the use of her tongue, and lay, for the most part, in a state of drowsy stupidity.

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The 9th day. The above account was brought me. The fever ran high in the exacerbations; she was still comatous, and speechless; she had had no stool since the 3d, and had never sweated. The carbuncle was suppurating; the axillary bubo had advanced very little, but the tumor under the breast was considerably enlarged, though still hard, and not inflamed externally. Diaphoretic powders were ordered, and sinapisms directed to be applied to the feet, but the latter were not applied. By means of a suppository, she had three stools, which immediately relieved her head, and she, in some degree, recovered the use of her tongue.

The 10th. She continued better all day, but at times was disposed to ramble.

The 12th. She had a stool yesterday. The fever increased a little in the night, but was very inconsiderable in the day, and she had recovered both her tongue and her recollection. The axillary bubo was advancing.

The 14th. She was recovering. The axillary bubo opened the 13th day, and the carbuncle was discharging copiously. The tumor under the breast was advancing, but did not open till after three weeks. The axillary bubo proved tedious in the cure.

The alarming symptoms in this case came on late in the disease; for till the 6th day, all appearances were favourable. The head, from that time, was much affected; and the continuance of the comatous disposition, and the loss of speech denoted danger. It may be remarked, that the head seemed greatly relieved by the operation of the suppository.

The axillary bubo opened soon, that is, on the 13th day, the other tumor, or spurious bubo, did not open till the fifth week, which was much later than usual. The axillary bubo opening so early, is the more remarkable, considering it was still hard, and had made little progress on the 9th.

On the 9th, the carbuncle was suppurating; its progress not having been impeded by the increase of fever on the 6th, was a good sign; for in general those tumors, in bad cases, remained dry, and undigested.

C A S E LXXXII.

A Christian youth, on rising from bed the morning of the seventeenth, complained of pain in the right thigh, and, conceiving he had got the plague, resigned all hopes of recovery. In about an hour after, he was seized with a weight in his head, an oppression about the præcordia, and

his extremities became cold, without shivering. Two hours after, (11 A.M.) CHAP.
the hands were recovering their warmth, but the legs still remained cold. I.

A sudorific draught with spirit. minder. pulv. contrayerva, &c. was ordered to be taken immediately, but in case of its not remaining on the stomach, the patient was directed to encourage vomiting, by drinking warm water. The draught was almost instantly ejected, together with some green bile, but the warm water produced little or no effect. In the afternoon, the fever increasing, he became slightly comatous. In the evening, ten ounces of blood were taken from the arm; diaphoretic powders were ordered to be taken twice a day, and his drinks to be acidulated. He slept some hours in the night.

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The 2d day, the fever was slight. The powders ordered to be taken every sixth hour. The bubo had decreased. An exacerbation came on in the evening, but he was not very unquiet through the night.

The 3d, the fever was slight in the morning, but afterwards increased, and he became drowsy, and stupid. The bubo could hardly be felt by the finger, but the whole thigh was exceedingly painful. He passed a very unquiet night, but retained his senses. Towards morning he sweated profusely.

The 4th, he found himself much better after the sweat, and desired food. The exacerbation of fever, this day, was very slight. He took no medicine.

The 5th. He remained as yesterday, and had passed a tolerable night. The powders were repeated, and he sweated a little towards morning.

The 6th. The fever increased this day, attended with thirst, and inquietude. He had one stool. He passed a bad night.

The 7th. He still continued feverish; the bubo was painful, and more swelled. The person who attended him, and who came for his medicines, falling sick at this time, I received no further account for some days.

The 10th. The patient, these three last days, had had little fever in the day, but was hot and restless in the nights. The bubo which, on the 7th, had the appearance of coming forward, was less painful, and much diminished. He took no medicine after this time. The bubo dispersed.

There was nothing alarming in this case, after the first day. I imagined from appearances on the 7th, that the bubo would have come forward. It very seldom happened that the sick, as in the present case, applied so early as the first day of the disease; I was therefore desirous to try the effect of a sudorific given immediately. The patient, so far as I could find,

CHAP. I. find, had no nausea, otherwise I should have ordered the warm water to have been given first. The sweat early in the morning of the 4th day, was by no means forced, the same medicines were given in many similar cases without any effect, where a natural disposition to that critical evacuation happened not to concur.

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C A S E LXXXIII.

The daughter of a Christian, a girl about eighteen, of a plethoric habit, found herself indisposed on Sunday the twentieth of June, but continued going about household affairs till the Tuesday afternoon; when finding herself unable to resist longer, she took to her bed, and a bubo was found in the left axilla. The fever not being high, she was not bled; and she made no complaint of her stomach.

The 4th day. The fever was represented to me as very slight, and the bubo was advancing. Diaphoretic powders were ordered. She passed a tolerable night.

The 5th. The powder taken this morning was immediately thrown up again, and the vomiting continued, with short intervals, till noon, when it was stopped by a saline effervescent draught. The fever rose and declined irregularly. She was extremely unquiet in the night.

The 6th. The fever raged all day, in irregular exacerbations. She had one stool. The bubo as before.

The 7th. Her nose had begun to bleed early this morning, and reduced the patient very low; other appearances were also alarming. Tincture of roses, and pulv. stiptic. edinens. were ordered. In the evening, I was informed that she had taken the medicines, but the hemorrhage continued incessant. The same medicines were repeated, but danger pronounced to be imminent. The bleeding ceased at 11 o'clock, and she expired at midnight.

Appearances at the beginning were not formidable; and the vomiting on the 5th was soon stopped; but the immoderate hemorrhage, on the 7th, destroyed all hopes.

C A S E LXXXIV.

The father of this girl, (Case LXXXIII.) was the second person infected in the family, but concealed it, or rather mistook his distemper at the beginning. He was an elderly man, subject in the spring and autumn to a severe cough, and spitting of blood, from an ulcer in his lungs of fourteen years standing. On the twenty-first of June he observed two small

pustules on the left leg, which gave him pain, but he was not otherwise indisposed, and, at that time, the distemper of his daughter had not declared itself to be the plague. On the 3d day, he complained of lassitude and head ach; but was not sensible of fever, or perhaps, from solicitude for his children, he was less attentive to himself.

The 4th day. He felt a pain in the left groin, and the pustules, having spread, were become much more painful; but, not being able to procure any one to fetch the medicines for his children, he was under the necessity of coming himself, the distance being above a mile from his house. When he came to me about noon, he was extremely fatigued, but said he was not otherwise much disordered. The tongue retained its natural colour, and the eyes were not muddy. He had not suspected the carbuncles, but was much alarmed by the pain in the groin, and when, upon searching, no swelling was discovered, he flattered himself the disorder was not the plague. The carbuncles were situated near one another on the outside of the leg, a little above the ankle. They were of the size of small hazel nuts, and, at the distance I viewed them, appeared like vesicles filled with a blackish coloured fluid. The skin round them was not so much inflamed as usual.

The 5th. He remained much as yesterday; but two other carbuncles appeared on the lower part of the left thigh.

The 6th. He sent me word that three new pustules were struck out on the upper part of the thigh; that they all gave him much pain, but, in other respects, that he was sensible of no material alteration. The poor creature, for fear of the messenger making mistakes, used to write the account of himself, as well as of his fellow sufferers, but I believe he had paid more attention to them, than to himself. This day proved fatal to his daughter.

The 7th. The fever was considerable; but he all along retained his senses. Three carbuncles were protruded on the right thigh.

The 8th. The first carbuncles were suppurating favourably, but the black crust, in the middle, had not yet cast off.

The 10th. The fever, these two nights, had been very slight. The bubo seemed disposed to suppuration.

The 12th. The bubo had made very little advance, and was still very hard. He had hitherto taken the diaphoretic powders, night and morning; but left them off from this day.

The 14th. The first carbuncles were healing; the others discharged freely.

The 18th. He was now, though weak, able to walk about. The bubo was advancing slowly.

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The 25th day. For these two or three last nights, he had been feverish from the pain of the bubo, which did not open till the fifth week. Soon after, he was attacked by his cough, and was long in recovering strength.

The carbuncles were the first symptom in this case; for he did not find himself indisposed otherwise, till the 3d day. They were unusually numerous, and a fresh eruption of them on the 7th, was remarkable. They discharged copiously, and, perhaps, proved critical, for the patient never sweated considerably. More formidable symptoms, as vomiting, delirium, coma, &c. were absent.

C A S E LXXXV.

The third person infected in this family, was the girl's brother, a slender youth, between nineteen and twenty. He was seized on the twenty-second of June, two days after his sister, and two buboes appeared, one in the left axilla, another in the left thigh. He was highly feverish, but not delirious, in the night.

The 2d day. He had been bled in the morning, but the fever was not abated. He showed much disposition to doze. His drinks were acidulated, and the usual powders were ordered.

The 3d. He was better for a short while this morning, but soon relapsed into the same state as yesterday. He sweated very inconsiderably.

The 4th and 5th. The fever, and the sleepy disposition had continued much as before.

The 6th. He was apparently better; his head clearer, and the fever diminished.

The 8th. The bubo had advanced very little. The exacerbations, though not severe, obliged him sometimes to lye down, at other times he sat out of bed. His stools were regular, and he perspired in the night.

The 10th. He was recovering. The axillary bubo was dispersing; the other advancing slowly.

The 14th. He was still a little feverish in the nights, but had taken no medicine after the 10th day. From this time, he continued to come for medicines for others in the family. The inguinal bubo advanced very slowly, and did not open till late in the fourth week.

C A S E LXXXVI.

In the same family, another youth, about seventeen, of a delicate constitution, was taken ill on the twenty-fourth, two days after his brother, and a bubo appeared in the right thigh.

The

The 2d day. He was slightly feverish in the morning. Eight ounces of blood were taken from the arm, and diaphoretic powders were ordered. In the afternoon, an exacerbation came on, in which he became delirious and comatous, and the body was covered with a clammy sweat.

The 3d. The exacerbation of yesterday continued till the evening, he sweated a little, and then became somewhat calmer, but passed rather an unquiet night.

The 4th. He was calm for some hours in the morning, but, the fever returning about noon, he again became comatous and delirious, alternately. He did not sweat, as yesterday, but a few drops of blood fell from the nose. At night he vomited a good deal of bile, and the nose bled a little a second time. The bubo was a little advanced.

The 5th and 6th. He remained feverish and slightly comatous, with little intermission. The skin remained dry.

The 7th. The fever was much the same, but his head was clearer. He lost about one cupful of blood from the nose. He took no medicine to-night, having no person to send for the powders.

The 8th. The fever was moderate, and he suffered little or no drought. The bubo had somewhat advanced. He passed the night more unquietly than ever.

The 9th. His nose continued bleeding from morning till night. The fever was inconsiderable, but he was low, and restless, from the loss of blood, and strongly apprehensive of sharing the fate of his sister. The tincture of roses was given every hour. After the hemorrhage ceased, he became more calm, and enjoyed some hours of refreshing sleep.

The 10th and 11th. He had been pretty well in the day time, but always feverish in the night, and complained of confusion in his head. He sweated little or none.

The 13th, he continued mending. The bubo had made little progress.

The 16th. The bubo had enlarged, was more painful, and tending manifestly to maturation.

The 19th. He had been subject to feverish heats in the nights, which seemed to be owing to the pain of the bubo.

The 23d. The bubo opened this day, but discharged very little.

The long continuance of the exacerbation which came on the 2d day, and its return the 4th, were alarming. But the most remarkable circumstance was the seeming relief, from the bleeding at the nose, which in general was a dangerous symptom.

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I.

His medicines were taken pretty constantly, but were only a diaphoretic powder night and morning.

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C A S E LXXXVII.

June.

The last person infected in this family, was the mother; a middle-aged woman, of a plethoric habit, and much subject to immoderate uterine hemorrhages. On the twenty-eighth of June, she found herself indisposed in the morning, and was at times sensible of a shooting pain in the left thigh; but being engaged in the care of her husband and her children, she continued walking about, till the afternoon of the day following, when she was obliged to take to her bed.

The 3d day. The fever, which in the night had not run high, was now very moderate; but she complained of head-ach, and a slight nausea. The bubo was very painful.

The 5th. The exacerbations in the night had been pretty severe, but she always retained her senses. In the day-time the fever was slight. Her stools were regular. A second bubo made its appearance in the right thigh.

The 6th. The menses came on regularly, and flowed copiously.

The 8th. The fever had greatly diminished. The first bubo was advancing.

The 10th. The menses still continued. The fever had increased these two last nights, owing probably to the bubo, which began to inflame externally.

The 13th. The bubo was advancing.

The 17th. The bubo was ripe for opening.

This woman took no other medicines than a few contrayerva powders. The symptoms, in general, were slight. The eruption of a second bubo, on the 5th day, was not expected; and the copious flow of the menses was attended with no detriment. It may be remarked, that they had omitted bleeding in this case, not from choice, but from not being able to procure any one to perform the operation.

C A S E LXXXVIII.

July.

A Christian youth, who in the preceding week had lost two brothers in the plague, was himself taken ill the eighth of July; a bubo immediately appeared in the right thigh, and he was bled.

The

The 2d day, the bubo was painful, and more swelled. He remained tolerably calm till night, when the fever ran high, attended with much inquietude.

The 3d. This morning his eyes were red, and muddy; the heat and thirst were moderate; but he was much inclined to doze.

The 5th. He rambled in the night exacerbations, and was dull and sleepy in the day. The bubo was little advanced. At night he became worse than ever, the fever rose high, accompanied with delirium, and much inquietude.

The 6th. The fever still continued, the skin was dry, and he was comatous. The bubo had advanced a little. He had a stool this day, for the first time in his illness. He suffered a strong exacerbation at night, which declined towards morning, with a plentiful sweat.

The 7th. He was in all respects better in the morning. A gum plaster was applied to the bubo, which was evidently advancing. The night exacerbation came on earlier than usual, but was less violent, and he again sweated profusely.

The 8th. When he awoke this morning he complained of hunger, and eat some boiled mutton.

The 10th. He had been a little feverish for these two nights, from the pain of the bubo, which since yesterday had been very painful, and was much inflamed. A poultice would have been better than the plaster, but he preferred the latter as less troublesome.

The 12th. The bubo opened last night, and discharged much matter.

The 15th. He continued to recover.

The 17th. The patient had had the itch in the preceding winter, which returned again about this time, and proved very troublesome.

The 21st. He took a purge.

The medicines till the 8th were the contrayerva powders twice or thrice a day, and acidulated drinks. He afterwards took a few doses of bark.

The symptoms at the beginning were not alarming; but from the 3d, till he sweated on the 6th day, there was ground for apprehension. The manifest alteration for the better on the 7th, encouraged hopes, and the sweat in the succeeding night appeared to be critical.

The bubo made a progress uncommonly rapid after the 6th day, for it was very unusual to see that tumor open so early as the 11th. The common

CHAP. I. poultice gave much less pain than the plaster, but many, on account of keeping the former more easily on the part, preferred the plaster.

1762. Costiveness often appeared to be of no material consequence; in the present case, the patient had no stool till the 6th day; but where the head was much affected, an opening medicine, of easy operation, was certainly advisable.

C A S E LXXXIX.

A robust man, about thirty, was, on the second of July, taken with a shivering, followed by heat and thirst, and a bubo appeared in the right thigh. The next day, the fever continuing, he was bled. On the 3d, a looseness came on, and, at night, he vomited once.

The 4th day. The looseness continued; he was very restless, faint, and low; a double bubo appeared in the right thigh. He did not take the medicines ordered.

The 6th. The looseness diminished yesterday; he took a contrayerva powder at bed-time, and had no stools in the night. This morning his lower extremities were cold, he was very restless, and complained of constant oppression at the præcordia. I ordered another powder, but considered his state to be almost desperate. The powder was given in the forenoon, soon after which the legs recovered their natural warmth, and the heat universally seemed hardly feverish. At night he took a second powder, but became very restless, and his extremities, till towards morning, were for the most part cold.

The 7th. He had no remarkable exacerbation this day. The buboes were advancing, though very slowly. The inquietude in the night was less than the preceding, but the extremities for the most part remained quite cold.

The 8th. He appeared in all respects to be better. The fever was very moderate, and the body regular. No material alteration in the tumors.

The 10th. These two last nights, the body when touched felt cold, and did not recover warmth till towards morning; but it was remarkable that when these cold fits went off, no perceptible febrile symptoms succeeded. He continued all day tolerably well, though very weak. The cold fit in the night was slighter.

The 11th. He was unusually feverish all day, but escaped the cold fit at night.

The 14th. He had been a little feverish last night, but has had no cold fit since the 10th. The tumors, particularly the second, gave very little pain.

The 16th. The first bubo was advancing.

The 18th day. The patient, though very weak, was able to come for his medicines. From the 10th, the bark had been given with the diaphoretic powders, which were continued to the 20th. The first bubo was soft and inflamed externally; the second gave no signs of advancing, but remained hard and indolent.

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The 26th. The right bubo opened this day, but discharged inconsiderably; the second bubo gradually discessed.

The long continued coldness followed by little or no fever, was remarkable in this case. It's being preceded by a looseness, and accompanied with constant inquietude, and oppression at the heart, led me, on the 6th, to consider the patient's condition as desperate. In the sequel, this coldness became less and less alarming, not being attended by coma, and the patient enjoying long intervals of calm.

C A S E XC.

In the house of a Turk merchant, where seventeen persons, out of twenty-two infected, had died in the month of June, a Circassian lady, about three and twenty, was, on the eighth of July, taken with a slight shivering, followed by a smart fever; a carbuncle appeared near the nipple of the left breast, and a bubo in the left axilla. In the evening she was bled, but passed a hot restless night. The fever continued all the following day, and a second bubo was protruded in the left thigh.

The 3d day. The fever, which had been high in the night, was but little abated this morning, and the head-ach, drought, inquietude, anxiety, and great dejection of spirits still continued. A diaphoretic cordial was ordered, and her drinks were acidulated. She passed a very feverish night.

The 4th. She remained much as yesterday; the head was rather more confused. The carbuncle was spreading, and very painful; the buboes were little advanced. She sweated for near an hour, at sun-set, but was very much disturbed in the night.

The 5th. She was calmer this morning. Had two stools. The carbuncle suppurated a little; the axillary bubo advancing; the inguinal remained as before. In the night she had suffered a severe exacerbation, which lasted two hours, and terminated in a copious sweat.

The 6th. She continued better all day. At sun-set, she sweated again, and a third time early in the morning. The cordial was continued regularly.

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The 7th day. She was manifestly better, but the tumors had made very little progress. She sweated in the night.

The 8th. She continued mending. Having had no stool for three days, a suppository was ordered, but she had passage before it was applied.

The 10th. She remained tolerably easy in the day-time, and was only a little feverish in the nights. The axillary bubo was painful, but advanced very slowly. The inguinal seemed to be discharging.

The 12th. She was recovering. The axillary bubo had advanced very little. The carbuncle was still discharging.

The 15th. The bubo was still painful, but had decreased in size. The carbuncle healing fast. Both buboes discharged. I advised a purge or two, but none was taken, and the patient recovered favourably.

The lady had a child, of two years old, at her breast, which was weaned the first day, and escaped the infection.

The febrile symptoms, in this case, ran high at the beginning, but a tendency to sweat appeared as early as the 4th day, and the repeated sweats on the subsequent days were certainly critical. The quantity of contrayerva powder in the mixture did not exceed two scruples. Dulcified spirit of nitre was generally an ingredient in the cordials, and proved very grateful.

C A S E XCI.

A young man, a Christian, found himself indisposed the morning of the second of July, and a bubo appeared in the left thigh; he complained also of pain in the right groin, but no swelling was perceptible there. The fever continued all day, accompanied with a constant nausea.

The 2d day, the fever was very moderate in the morning, but the nausea still continued. He was ordered to be bled, and to provoke vomiting by repeated draughts of warm water; but both orders were neglected. He had a pretty severe exacerbation in the evening, and bled at the nose, losing near a cupful of blood.

The 3d. Early in the morning, the bleeding at the nose again returned, and continued till noon. Spirit of vitriol with conserve of roses to be mixed with water, and bark joined to the contrayerva, were the medicines ordered. The bleeding again returned in the evening, and continued till mid-night, after which he became tolerably composed.

The 4th day. The fever was very moderate in the morning, and he found himself better in all respects, weakness excepted. The buboes seemed to advance.

advance. The bleeding at the nose returned about midnight, and continued most part of the night. CHAP.
I.

The 5th day. He was sunk by the hemorrhage, but the other symptoms appeared to be mitigated. The proportion of bark was increased. Two carbuncles were protruded on the right leg. The bleeding at the nose returned at noon, and continued till late at night, after which he remained till morning remarkably quiet. 1762.
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The 6th. The fever was very moderate in the morning; the first bubo was advancing. In the evening, the fever increased, and he was delirious all night.

The 7th and 8th. The fever, accompanied with delirium, and much inquietude, still continued with very short remissions, and the skin always remained dry.

The 9th. His condition was much the same as on the two last days, he never sweated, nor did he recover his senses in the remissions.

The 10th. The fever was very little diminished, but he was more composed and sensible than for these three days. He complained of excessive head-ach, and of pain from the buboes, both which were advancing. Having had no passage for seven days, a laxative was ordered, but not taken. He passed the night more composedly than for some time past, and sweated a little.

The 11th. He remained calm all day, and had one stool. The fever increasing in the evening, he passed a restless night.

The 12th. He was better to-day. A few drops of blood fell from the nose, in the morning. He had one stool.

The 14th. Both buboes were soft and inflamed externally. Little or no fever remaining.

The 18th. The bubo on the right side had opened on the 16th; that on the left opened this day.

The 20th. The buboes discharging. Two small furuncles, not of pestilential appearance, struck out near the left bubo.

This was an irregular case, and, in respect to the long duration of the hemorrhage, a singular one. The quantity of blood lost from the 2d to the 5th day, inclusive, was very considerable; but though the patient was weakened by the loss of blood, the other symptoms appeared to be mitigated, which is the reverse of what is usually observed in the plague. The patient was of a temperament not remarkably plethoric, but my memoranda

are

CHAP. I. are defective in not mentioning whether he was at other times subject to bleeding at the nose. From the 6th to the 11th, his condition was alarming: but the alteration on the evening of the 6th day was not altogether unexpected, for the eruption of the carbuncle the preceding day, left room to suspect the calm in the morning of the 6th. The progress of the buboes, after the 10th, was remarkably quick.

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C A S E XCII.

June. A boy about seven years old, the son of the Cady of Aleppo, was, on the twenty-fifth of June, seized with a convulsive fit, preceded by a cold shivering, and followed by a fever and looseness, both which continued throughout the night. Next day he had a return of the convulsive fit, not preceded by shivering, but the fever and looseness were increased.

The 3d day. By the accounts brought me this morning, the fever had declined very little, and the boy appeared heavy and stupid. The looseness continued. Search had been made for eruptions, and, as I was assured, none were discovered; but, strongly suspecting the case to be pestilential, I desired he might be more carefully examined, and ordered, in the mean while, the white decoction for ordinary drink. In the evening I was informed a carbuncle had been discovered on the hind part of the right leg, and that the boy appeared to be in all respects much worse than in the morning.

The 4th. He died this forenoon. He had at first taken some bezoar, but took nothing afterward except the white decoction.

This is almost the only instance, to the best of my recollection, I met with of a convulsive fit attending the first attack of the plague. The looseness, and continuation of the fever, without remissions, or with remissions in which the head was not relieved, denoted danger.

C A S E XCIII.

A Jewish girl, about fifteen, who had been labouring under a double tertian fever for a fortnight, had her regular paroxysm on the twenty-sixth of June, (the 15th day of her sickness) at the usual time; but in the hot fit, a bubo was protruded in the right axilla. The fever declined with a sweat, much less considerable than usual, but the head-ach remained, and she complained of great oppression at the heart.

I saw her no more.

This

This defective case furnishes an instance of the plague's joining itself to another distemper; and as I had few opportunities of seeing such cases, I regretted the having seen no more of this girl.

CHAP.
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C A S E XCIV.

A youth, about twenty, was, on the twenty-third of July, seized with a strong fever, attended by a vomiting. His case being suspicious, he was searched, but no eruptions were discovered. Scarification behind the ears was substituted for bleeding. He passed a restless night. Next day the fever continued, and he vomited several times.

The 3d day. The fever increased and declined in irregular exacerbations; but the inquietude was incessant, even in the remissions, and there appeared no disposition to sweat. A bubo was discovered in the left thigh. The diaphoretic powders were ordered. He passed a bad night.

The 4th. The comatous disposition was increasing.

The 6th. No accounts were brought me from his house yesterday, or this morning, but I learned from another quarter that the patient died in the night.

The above was a very common form of the disease, and generally proved fatal. Vomiting, where it continued beyond the first day, was always a dangerous symptom. The dryness of the skin, and no apparent mitigation of the disease in the morning of the 3d or 4th days, were also circumstances indicative of danger. But to all this exceptions occurred, and the following case supplies an example.

C A S E XCV.

A girl, about twenty-one, the sister of the youth (Case XCIV.) was taken ill the twenty-third of July, at the same time with her brother. The fever, from the beginning, was violent, and accompanied not only with frequent vomiting, but likewise, at times, with a weight in the head, and a strong propensity to slumber. She had neither been bled, nor taken any medicine.

The 3d day. The fever had somewhat decreased, but the retching continued. A carbuncle was discovered near the bend of the left arm. A diaphoretic powder, which was administered at bed-time, did not remain on the stomach, and she passed a bad night.

The 4th. She was in much the same state as yesterday morning, and had not sweated. A bubo appeared in the left thigh. The retching was not so frequent, but, by way of precaution, a scruple, of salt of wormwood,

with

CHAP. with lemon juice, was ordered to be taken, before attempting the diaphoretic
I. powders.

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The 9th. I heard no more of her till this day, and could collect no satisfactory account of what had passed in the interval since the 4th. Her nights had been always more or less feverish, and she had sometimes sweated, but never profusely. All appearances were now favourable, and the bubo was advancing to maturation.

The first attack, and the condition of the patient during the three first days, were rather more alarming than in the brother's case, but the event proved different. In both cases, the buboes were unusually late in making their appearance.

In comparing these two cases, it may be remarked, that in the one, the comatous disposition increased on the 4th day; in the other, the comatous disposition seemed not to have increased, but rather to have decreased, after the 3d, and, if there was no material alteration for the better on the 4th day, there was no augmentation of bad symptoms.

C A S E XCVI.

A girl about eighteen, complained on the seventeenth of July, of a shooting pain in the right thigh, but was not otherwise indisposed, and passed the night without any perceptible fever. Next day, she suffered a succession of cold and hot fits all forenoon, but the fever became continual in the afternoon, and she was bled. She retched several times after the bleeding, but it was only a faintish sickness. She was hot, and restless in the night, and sweated a little in the morning.

The 3d day. The fever ran high in the day, and she was very unquiet in the night. The bubo remained as at first. Her medicines were diaphoretic powders with the bark, in composition.

The 4th. She bled at the nose in the forenoon, and had four stools in the course of the day. In the night she was extremely unquiet, and the menses appeared some days before their time.

The 5th. She was in all respects worse; she suffered much inquietude, oppression at the heart, and faintness. The fever was variable, and there was no considerable sweat. The menses stopped in the night. She was very restless, but retained her senses.

The 6th. She remained much in the same state as yesterday morning. The bubo had somewhat advanced. From this time she took no medicine, and I heard no more of her for some days.

The

The 13th day. She had sweated profusely on the 8th day, after which she grew gradually better. The bubo was tending fast to maturation. CHAP.
I.

The bubo, in this case, was the first symptom. The bleeding at the nose, and the untimely appearance of the menses were, in general, unfavourable circumstances. The sweat on the 8th day, appears to have been critical, and from that time the bubo advanced rapidly. 1762.
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C A S E XCVII.

A young man, found himself indisposed the morning of the twelfth of July; in the afternoon, he vomited several times, and a bubo appeared in the left thigh.

On the 2d day, he was bled, but remained feverish all day, and in the night became very restless. He sweated a little towards morning. The bubo had enlarged.

The 3d. The fever was much the same as yesterday. He was restless in the night, and again sweated early in the morning, though not considerably.

The 4th. The head-ach increased. He had a severe exacerbation in the afternoon, and was worse than ever in the night. A carbuncle was protruded near the bubo.

The 5th. The fever was high all day, accompanied with much thirst. His drinks were acidulated, and the contrayerva powders, which he had taken twice a day, were continued. He was tolerably composed this night, and slept some hours.

The 6th. He was every way better through the day; but, in the evening, the fever increased, and he was by turns delirious, and comatous most part of the night; towards morning he sweated a little, as on the 3d. He took a powder every eighth hour.

The 9th. He was tolerably calm in the morning, and in the afternoon became remarkably better.

The 8th. He found himself well enough, from this day, to come for his own medicines.

The 12th. He continued, from the 8th day, to recover. He had been slightly feverish in the nights, but was always relieved by a sweat in the morning. The bubo made a very slow progress.

The 19th. The bubo was advancing slowly.

The attack here was accompanied with vomiting, but it ceased of itself the first day. Though he did not sweat profusely, there was a kindly tendency to perspire, which was, in general, a good sign.

CHAP.

C A S E XCVIII.

I.

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July.

A Christian youth, about eighteen, was, on the morning of the twentieth of July, seized with a fever, accompanied with violent head-ach, and a vomiting that continued till night. A bubo being discovered in each axilla, it was thought better to omit bleeding.

The 2d day, the fever continuing high, with much disorder in the head, he was ordered to lose eight ounces of blood from the arm, and to take the diaphoretic powders. The vomiting returned after the bleeding, but ceased upon taking one of the powders, and he remained calm till midnight. The vomiting then returned, with strong exacerbations of fever, and he lay comatous the remainder of the night, except when roused by the retching.

The 3d. This morning, there was no mitigation of symptoms. Salt of wormwood was given to check the vomiting, and sinapisms were ordered on account of the coma. The coma was somewhat relieved, but the vomiting did not cease till night, and was then succeeded by a diarrhœa, which harassed him till morning.

The 4th. The coma increased; and, even in his best intervals, the head remained greatly confused, and he faltered in his speech. In the forenoon, he had a profuse hemorrhage from the nose. In the evening all appearances were bad, he was delirious most part of the night, and had tremors in all his limbs.

The 5th, he remained much in the same state, but his tongue was more affected, so that he could not articulate. At night, the bleeding at the nose returning, continued several hours. No medicines had been taken since the 3d.

The 6th. Great stupor, and his strength was exhausted. He died in the night.

A vomiting protracted, as in the present case, was almost constantly a fatal symptom; but when combined with coma, looseness, and hemorrhage, no hopes of recovery remained. In regard to hemorrhages, they almost constantly portended danger, where they appeared later than the 3d day.

C A S E XCIX.

A sprightly boy, about ten years old, the son of an eminent Turk merchant, felt a pain in the right thigh, the thirteenth of July, and, upon searching, discovered a small bubo, but not finding himself otherwise indisposed, and being unwilling to alarm his father, he concealed it till the afternoon of the

the

the day following, when he was obliged, by the increase of febrile symptoms, to confess his situation. He was extremely restless the second night, and complained of pain in the right parotid. CHAP.
I.

The 3d day. He had four or five stools in the morning. Some medicines were ordered, but not taken. He continued highly feverish, and had two more stools in the night. 1762.
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The 4th day. He was tolerably calm till noon, when he had a slight exacerbation. After two or three loose stools, he was prevailed on to drink the white decoction, and passed a pretty good night.

The 5th. He continued better all day; the looseness diminished. The tumors had made no advance, but were still painful. He left off the decoction.

The 6th. He had little or no fever; the looseness ceased, and he grew impatient for improper food.

The 7th. The parotid was more swelled, and more painful. From this time, though he paid very little regard to diet, he continued to recover.

The 15th. The parotid had dispersed; the inguinal bubo remained still painful, but had made no progress. The bubo also dispersed slowly, but he could not be prevailed on to take a purge.

The parotids more seldom came to suppuration, than any of the other buboes. The symptoms, in this case, after the 3d day, were not alarming, and the looseness seemed rather to be of service.

C A S E C.

A slave boy, in the same family with the patient (Case XCIX.) and of the same age, was taken ill the eighteenth, five days after his young master. In the night, the fever rose to a great height, and the boy lay in a state of drowsy stupor till morning, when a bubo was discovered in the right thigh.

The 2d. The account brought me this morning was, that the fever still continued, notwithstanding he had been cupped; that he lay for the most part comatous, but at intervals revived, and then wept bitterly, declaring he was certain he should never recover. As he complained much of thirst, his drinks were acidulated with spirit of vitriol. He was delirious all night.

The 3d. He lay sunk in a coma, but the febrile heat was less. Sinapisms being applied to the feet, he became more sensible, and in the subsequent

CHAP. I. frequent exacerbations, in the night, though he sometimes rambled a little; in general he retained his senses. Towards day-break he had four stools.

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The 4th day. The fever was very moderate, and he thought himself better, but he had still the drowsy disposition, and the looseness, by which that disposition seemed to be increased, still continued. Some restraining powders were ordered, to check the diarrhœa; but he took only one dose. He continued tolerably calm, till three or four in the afternoon, when a most alarming exacerbation came on, and he expired at night.

The early appearance, and continuance of coma, in this young patient, denoted danger from the 2d day. He had no disposition to sweat; and the looseness sunk him instead of relieving him.

This case I consider as belonging to that class, wherein no medicine hitherto known can be of service.

C A S E C I.

A Turkish lady, of fifteen, was, on the nineteenth of July, seized with a violent fever, a bubo appeared in the right thigh, and the fever did not decline till next morning.

The 2d day, though the fever, by the accounts brought me, appeared to have subsided, the patient remained extremely unquiet, complained of great internal heat, and at times talked deliriously. Bleeding was advised, but not complied with; in the afternoon her hands and feet became coldish, and did not recover warmth till morning. She was delirious, and talked incessantly, all night.

The 3d. This morning she lay comatous, and when roused was not sensible. The body was moderately hot, but her extremities rather cold. Sinapisms were applied to the feet, which relieved the head; but she complained much of internal heat, and her extremities still remained cold. Her drinks were acidulated, and a simple cordial with spirit nitr. dulc. was ordered. The sinapisms were repeated at bed-time, and, though restless, she passed this night with less delirium than the preceding. Her extremities were alternately hot and cold all night.

The 4th. She complained as before of internal heat, at times rambled a little, and her extremities were cold. Was unquiet the fore part of the night; but, after sweating a little, became more composed.

The 5th. She had entirely recovered her senses, the internal heat was less, the extremities became cold several times in the forenoon, but recovered their warmth in a few minutes. In the afternoon she suffered an exacerba-

tion, attended with a slight delirium. Half a drachm of contrayerva powder was given in a draught. The fever increased in the night, and she sweated profusely. CHAP.
I.

The 6th day. She was quite calm in the morning, though weakened by the sweat, and continued easy all day, without any return of cold in the extremities. The bubo, which yesterday showed some signs of advancing, was less painful and less swelled. Her chief complaint was of pain in the soles of the feet, occasioned by the sinapisms. 1762.
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The 7th. The same medicine, as on the 5th, was repeated at bed-time, and she passed a quiet night, without sweating; she remained well all day, but would take no medicine, except the cordial prescribed at the beginning.

The 9th. She had been slightly feverish these two last nights, for an hour or two, but in the day time had been tolerably well. The bubo was discharging.

She recovered speedily, and though not purged, appeared to suffer no inconvenience from the discussion of the bubo.

This case was remarkable on account of the coldness of the extremities, which I do not recollect observing before under the like circumstances. Appearances, during the first three days, were very alarming, and the favourable turn the distemper took on the fifth, was altogether unexpected. The sweat appeared to be completely critical, and, I think, was not forced; for little could be ascribed to the small quantity of the diaphoretic medicine, which, however, got credit for it. Where the buboes discharged, I always advised purging in the decline of the disease; but, as I have remarked before, the advice was often neglected, without ill consequences.

C A S E CII.

A Christian youth, about fifteen, was seized with febrile symptoms, the morning of the twenty-first of July, a bubo appeared in each axilla, and he soon became comatous. He was bled in the afternoon, and at night took a diaphoretic powder. He was very unquiet all night, and vomited several times.

The 2d day. The fever, in the forenoon, was perpetually varying. The patient was sometimes drowsy and stupid, at other times sensible, and complained of great oppression about the heart. He had little thirst, and his extremities were at times cold, even in the febrile exacerbations, while the inquietude remained incessant in the short remissions. He had vomited several

CHAP. 1. veral times in the morning, but water now remained on his stomach. In the evening he grew worse, and past a most restless night.

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The 3d day. A looseness supervened in the morning, and in the course of the day the body became livid. He expired in the evening.

This case belonged to that class which proved invariably fatal, and which I suspect admits of no assistance from medicine. At that period of the season this form of the disorder was certainly, in proportion, rare; for we very seldom heard of persons dying so early as the 3d day.

Whether the bleeding here did not do harm, may be doubted; many reasons may plausibly be urged against that evacuation; but on comparing the phenomena in this and similar cases, with cases wherein bleeding had been omitted, I confess, I often could not discover any material difference.

C A S E CIII.

A Christian woman, in the evening of the twentieth of July, was seized suddenly with a shivering, and complained of pain in the left thigh. She grew feverish at night, and next day was bled. The fever was variable, increasing and declining irregularly. She had several loose stools daily.

The 3d day. The above account was received from the husband this afternoon, only that he had forgot to mention the looseness. In the evening he returned, in order to rectify this omission, and to acquaint me that the patient, in his absence, had an attack of the fever so violent, that the women had caused her to be bled at both arms, at the same time. She now, he said, lay in a state of total insensibility, and seemed so extremely weakened by the loss of blood, and the looseness, that he conceived it impossible for her to recover. A cordial was ordered, with a little diascordium, to be taken according to circumstances. She was relieved by the cordial, and the looseness also being checked, she passed a tolerably quiet night.

The 4th. She remained low all day, the fever returning irregularly in short exacerbations, and she had one or two darkish coloured stools. In the night, becoming extremely ill, the women were alarmed by the remarkable ghastly alteration in her countenance.

The 5th. She sweated a good deal at noon, and her hands became temperately cool; but the fever soon returned, and a second bubo was protruded near the first. She was restless and delirious in the night.

The 6th. She was composed for a short while, in the morning, but, the exacerbations returning, she was by turns delirious, and sensible. She had three stools like those on the 4th day.

From

From this time my memoranda are defective, but I find the woman recovered, and that both buboes opened on the 17th day.

CHAP.
I.

This case furnishes an extraordinary instance of bleeding at both arms at once, so late as the 3d day, notwithstanding the patient had been bled the day before; and, considering a looseness also attended, it was not to be wondered that she should be alarmingly exhausted by the sudden evacuation.

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Large evacuations of blood at the beginning, I knew had been recommended, and even practised in that country, but this being the only instance that fell under my own observation, I the more regretted the defect of my memoranda, which leaves a chasm in the progress of the disease, from the 6th, to the 17th day. Two circumstances, however, may be remarked, namely, that the woman recovered, and that the buboes came sooner to maturation than was to be expected in her state of inanition.

C A S E C I V.

A Christian lad, about fifteen, had gone to the gardens on a party of pleasure, the fourteenth of July, and returned home in the evening with a violent head-ach, a fever, and a bubo in the right thigh. In the night he became delirious, and was very restless.

The 2d day. He had recovered his senses in the morning, but the fever was still high, and the inquietude continued. He complained of nausea, but did not vomit, though he drank warm water. About noon he became senseless; the inquietude and writhing of his limbs increased, and he continued in that state all night. The medicines ordered had not remained on the stomach, though he did not vomit at other times.

The 3d. He remained nearly in the state described above. In the course of the day, some dark coloured petechiæ were discovered on the neck and breast.

The 4th. He died early in the morning.

Petechiæ were by no means common in the plague. In the present case their appearance, in conjunction with the other symptoms, betokened approaching death. Their colour was different from those common in petechial fevers, and they were few in number.

The first attack, in this case, was not accompanied by symptoms of such dangerous import; vomiting, looseness, coma, &c. were absent; but the inquietude, on the morning of the 2d day, and the alteration at noon, justly raised alarm.

CHAP.

I.

1762.

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C A S E CV.

The brother of the lad (Case CIV.) a youth about twenty, was one of the party at the gardens, on the fourteenth of July, and returned home also indisposed in the evening, when a bubo made its appearance in the right axilla. In the night he vomited several times, and was very restless.

The 2d day. The fever continued high, his head was much confused, and the vomiting returned at intervals. He was ordered the diaphoretic powders, and to drink warm water; but the appearance of the bubo had proved an objection to bleeding. He vomited the night powder, and was for the most part delirious, till towards morning, when he sweated a little.

The 3d. He remained hot and unquiet this morning, but had recovered his senses. He suffered some exacerbations of the fever through the day, and passed a bad night.

The 4th. He had four stools in the morning. Fifteen grains of the species e scordio cum op. were given, which put a stop to the looseness; but the patient, on hearing of his brother's death, was much alarmed, and passed a very bad night.

The 5th. The fever still continued, but upon the whole he appeared to be no worse. The bubo was a little advanced. He passed the night rather more quietly, but did not sweat.

The 6th. The fever was moderate, and the patient expressed a desire for food. I know not whether he had been indulged, but in the night, he had a severe exacerbation, in which he became first delirious, then comatous, and towards morning seemed to be in the agonies of death, till relieved by a sweat.

The 7th. He was calm in the morning, the fever moderate, and the bubo advancing. He had three stools before the evening, and passed a bad night.

The 8th. He had more fever than yesterday, and was low and dejected. In the night, however, he was tolerably quiet, till two hours before day-break, when he had a short exacerbation, which declined with interrupted sweats.

The 9th. He was in all respects better, but very weak. The bubo was advancing.

The 13th. I heard no more of the patient till this forenoon. The bubo had opened the day before, and he was in a fair way.

The first attack, in this case, was in some respects more formidable than that of his brother. He sweated only a little on the morning of the 3d day,

but, though the fever still continued, he had no coma, nor did that symptom come on after the loose stools on the 4th. Though these were rather favourable circumstances, matters remained doubtful till the 7th day.

CHAP.

I.

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C A S E CVI.

A Christian girl, about three and twenty, felt a pain and stiffness in her neck, the nineteenth of June, to which she paid little attention, conceiving it to be no more than a cold. Next day, at noon, she had a shivering succeeded by a fever, and, in the evening, a bubo appeared in the right thigh. The fever continued all night, but there was no nausea.

The 3d day. The pain in the neck was gone, but she complained of violent pain in her back and knees. Bleeding was advised, and diaphoretic powders were ordered, but of the powders one only was taken; for, an exacerbation coming on soon after the first, she refused to take any more. The bleeding had also been neglected. The fever was not very high in the night, and she sweated a little.

The 4th. She remained much the same as yesterday, and suffered several exacerbations in the day. At night she was prevailed on to take a powder, but did not sweat, and passed a very restless night.

The 5th. This morning, the fever was moderate, but she was much disordered; the inquietude was incessant, and she complained of constant pain, or oppression at the heart. The bubo was well advanced, and extremely painful. She took the medicine at bed-time, but threw it up immediately. After midnight, without any visible increase of fever, she became so extremely ill, from inquietude and oppression at the heart, that the attendant expected she would have expired. She had one stool.

The 6th. She complained of excruciating head-ach, and still more of oppression at the præcordia. The exacerbations appeared, to those about her, less severe, yet, in other respects, she showed no signs of amendment. She took a diaphoretic powder again, but it did not remain on her stomach, and she passed another disturbed night, though not so bad as the night before.

The 7th. She was more composed, but continued to complain much of oppression at the heart, and want of sleep. She hitherto had only vomited the medicines, which she always took with reluctance, but this day she retained nothing on her stomach, which made her averse to food, and even to drink. A scruple of salt of wormwood in lemon juice put a stop to the vomiting, and her usual medicine was ordered in the form of a mixture. She had one stool. The night was calmer than usual, and she sweated a little.

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The 8th day. Though she had sweated in the morning, the fever remained high. The bubo had swelled considerably, but remained hard, and extremely painful. The mixture, on account of the powder it contained, had been taken only once or twice; it was therefore changed for a simple cordial, with sweet spirit of nitre. She suffered some severe exacerbations last night, complained much of oppression at the heart, and was incessantly changing posture, but it was remarkable that she had all along retained her senses.

The 9th. The inquietude and oppression at the heart continued, but the latter was somewhat alleviated by the cordial yesterday, which, for that reason, she took willingly. The bubo was inflamed externally, and very painful, but still remained hard. She passed this night like the former.

The 10th. The fever was high in the morning, the tongue parched and brown. The complaint at the præcordia, and the inquietude remained as before. She had passage this day by means of a suppository, and found herself better after it; but in the evening she grew worse, and died in the night.

This is among the few instances I met with of a person dying in the plague so late as the 10th day *. In other respects the case was singular and irregular. At the beginning, those symptoms which usually denote danger were absent. The pains in the back and knees, which, in that country, often attend malignant fevers, were not common in the plague; and, till the increase of the inquietude, and the oppression at the heart, on the 4th and 5th days, there was ground to hope that the disease would have terminated happily. The apparent advance of the bubo flattered the attendants, but the excessive pain, about the 8th day, made me apprehensive of a mortification.

C A S E CVII.

A Jew broker, aged about fifty, of a spare habit, and father of many children, observed a small angry pustule on the right wrist, the evening of the twenty-fifth of June. He did not find himself otherwise indisposed, and had no suspicion of the eruption; but having no appetite for supper, he went sooner than usually to bed. Upon getting into bed, he was sensible of a slight shivering, which soon went off, and was not followed by any perceptible fever. Next morning the pustule had spread, and was more painful, but he continued walking about. In the night the pain became excruciating, the wrist and arm swelled considerably, and he was feverish.

* See Case IV.

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I.

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June.

The 3d day. He applied to me in the evening. The fever was then moderate, he had no nausea, and his bowels were regular. I assured the relations, that the distemper was the plague, and advised the family to consult their own safety, there being several children who could be of no use about the patient. His wife devoted herself, and attended him with the utmost care. Proper dressings were ordered for the eruption, but the pain was so violent as to prevent his having any sleep in the night. The exacerbations of fever, by the accounts brought me, were not very severe, and declined without sweats.

The 4th. I desired he might be searched for buboes, and this day one was discovered in the right axilla. The carbuncle was spreading. His medicines were diaphoretic powders, and spirit of vitriol for acidulating his drinks. He had a pretty strong exacerbation in the afternoon, and passed a very restless night, but sweated a little, and had two stools.

The 5th. The fever had declined in the morning. The carbuncle was still spreading, and began to grow black in the middle. At noon, a few drops of blood fell from the nose, and he vomited twice. The fever increasing in the evening, continued strong all night, and he did not sweat.

The 6th day. The carbuncle was still spreading, the hand and arm were prodigiously swelled. He had one stool. Though the fever was moderate in the day, as well as in the night, the torture of the carbuncle hindered him from sleeping.

The 7th. The carbuncle, in some places, at the edge of the black crust, began to suppurate, but there appeared a tendency to a gangrene in the surrounding skin.

The 8th. There was a pretty considerable discharge from the carbuncle, but no diminution of pain. He was highly feverish in the night, and very restless. His skin remained dry.

The 9th. The fever did not remit in the morning as usual. The axillary bubo was enlarged, and was more painful. The circle round the carbuncle mortified. A sudorific draught was given every five hours. At noon, dark petechiæ appeared on his neck and breast, after which the fever increased, attended with great inquietude and thirst. In the night he grew worse, the inquietude was incessant, he was for the most part delirious, and, towards morning, his breathing became so laborious that the attendants gave him over.

The 10th. He was a little more composed in the morning, but still rambled. The thirst was excessive; the gangrene still spreading. He could

CHAP. with difficulty be prevailed on to take any thing, except the acidulated
 I. drinks.

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The 11th day. He was calmer and more sensible all day, and had less fever in the night, but got no rest from the excruciating pain of the whole arm.

The 12th. The fever was manifestly less, but the gangrene still continued to spread, and the patient was low and exhausted. The fever increased only a little in the night, and, the pain of the arm being somewhat abated, he passed a better night. He had one stool by means of a suppository.

The 13th. The gangrene stopped this day, and the fever was moderate : but he became hot and restless in the night.

The 14th. The carbuncle was suppurating favourably.

The 16th. He had been rather more feverish these two nights. The petechiæ were gone ; the mortified crust in the middle of the carbuncle was nearly separated. Upon changing his clothes last night, a small carbuncle, in a healing state, was discovered on the left arm.

The 17th. The fever was very slight, but the patient was reduced to the last degree of weakness. He had no passage but by means of suppositories. The tendons of the wrist were laid bare, by the skin sloughing off. The bubo was discharging.

The 18th. The discharge from the carbuncle was considerable.

The 20th. He had been a little feverish in the nights. His medicines, for these last four days, have been small doses of bark. The mortified parts had now mostly cast off, and the ulcer was exquisitely sensible, but the supuration was favourable.

From this time he remained under the care of a surgeon. The cure of the ulcer proved tedious, and a stiffness remained in the tendons. He was a long while in recovering strength.

This case was remarkable on account of the size, and the excruciating pain of the carbuncle, for though the carbuncles were always painful, yet the pain usually abated as soon as supuration began. The situation of the eruption of course produced variety in regard to pain, but, in the present case, much was owing to the singular irritability of the habit. The pestilential symptoms at the beginning were not formidable, and the appearance of the carbuncle, on the 7th day, was favourable ; but though the supuration came on the 8th, the pain did not abate, nor did the gangrene stop ; and the appearance of petechiæ, on the 9th, joined in raising apprehensions. He was not out of danger till the 13th day.

The

The swelling in the axilla was a real bubo, and not produced merely by the pain of the carbuncle. It was not unusual, where carbuncles on the leg or arm were very painful, for the inguinal or axillary glands to swell; but then, generally, more than one gland swelled, and as the pain of the carbuncle abated, the swellings subsided; add to this, that the glands so swelled, were not so painful when touched, as the real bubo. I wished to have given the bark, but could not prevail on him to take it, while the fever ran high. His costive habit was an objection to opiates, which I think might have been given safely, to allay the pain.

CHAP.

I.

1762.

July.

C A S E CVIII.

A Christian, between thirty and forty, on the fourth of July, while at church, felt a shooting pain in the left thigh. In the evening he became feverish, and vomited.

The 2d day. He was calm in the morning. The bubo small, and situated near the crural vessels. He was directed to lose ten ounces of blood, and to take diaphoretic powders. He passed a feverish, restless night.

The 3d. The fever was still high, and he was much disposed to slumber. He had not vomited since the first night. The fever increasing in the night, he was for the most part delirious, and a second bubo was protruded in the right thigh. He sweated a little towards morning.

The 4th. The fever had declined, and he had recovered his senses, but complained of weight in his head, and was much disposed to slumber. The fever increased in the night, but he was not delirious. He had one stool.

The 5th. He was in the same state as yesterday. The first bubo was advancing, and he passed a better night.

The 6th. He was remarkably well in the morning, and continued so till four in the afternoon, when, a severe exacerbation coming on, he became delirious, and extremely restless, and remained so till after midnight, when he was relieved by a profuse sweat.

The 7th. He was in all respects better. The bubo was a little inflamed, and considerably enlarged. The second bubo had made little progress. He was restless in the night, but sweated about day-break.

The 8th. He was tolerably calm all day, and passed a composed night.

The 9th. As yesterday. The bubo was advancing fast, and the pain of it rendered him hot and restless in the night.

The 10th. His chief complaint was of the bubo. He could not be restrained, in the forenoon, from indulging his appetite, and eat greedily of boiled mutton. In the afternoon, a severe exacerbation of fever came on,
and

CHAP. and he continued very ill all night. In this interval a third bubo was protruded in the left thigh, near the first.

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The 12th day. He had been tolerably quiet since yesterday morning. The first bubo was nearly ripe, the second was advancing slowly. About noon he had a considerable hemorrhage from the nose, and was very feverish in the night.

The 14th. The first bubo was soft, and in a state to be opened, but no one could be found to perform the operation.

The 16th. The bubo was opened with a lancet, but, the incision being too small, the discharge was inconsiderable.

The 20th. The discharge from the first bubo was still very inconsiderable, and the swelling had not subsided. The second bubo in the right thigh, which seemed at one time to advance, had receded, and was now scarcely perceptible. The third bubo in the left thigh, had somewhat advanced.

The 22d. The first bubo now discharged freely, the orifice having enlarged of itself.

The 24th. He had for some days been free from fever in the day, though sometimes a little feverish in the nights. This afternoon, he had a smart fever for several hours, which declined without a sweat; but a fourth bubo was protruded in the right axilla. The third bubo which had appeared on the 10th in the left thigh, was tending fast to maturation. The axillary bubo remained as at first. Since yesterday he has had a defluxion on the right eye, which is much inflamed. A purging potion was ordered to be taken next morning.

The 28th. The third bubo in the left thigh opened. The axillary bubo was discussing. His medicines, from the 12th day, had been small doses of bark.

The patient had contracted the itch in the winter, and got rid of it about two months before his present illness. About this time, that distemper again returned, and, in conjunction with the ophthalmia, contributed greatly to retard the recovery of his strength.

The succession of buboes, in this case, was the more remarkable, as the first bubo had all along advanced favourably, and the patient had sweated profusely on the 6th day. The appearance of the 3d bubo, on the 10th day, was ascribed to his having eat flesh, it being a common opinion in that country, that the eating of flesh before the expiration of 30 or 40 days, will produce new eruptions in the plague, as well as in the small-pox. The eruption of the axillary bubo, so late as the 24th day, was a very uncommon
circum-

circumstance. The hemorrhage from the nose, on the 13th, might have caused apprehensions, had it not been for the absence of other bad symptoms.

It was proportionally in a few cases only, that the lancet was used for buboes, and then often proved of little service, from the smallness of the orifice, as in the present case.

CHAP.
I.

1762.

July,

C A S E CIX.

A Turkish youth was infected the latter end of June. An inguinal bubo, which had opened in the third week, was still running, when I saw the patient for the first time, on the last day of July.

Some days before I saw him, that is, about the 27th, or 28th day of the disease, a second bubo had been protruded close to the first, and was then advancing to maturation.

It does not appear, from the defective narrative of this case, whether the eruption of the second bubo was preceded by febrile or other symptoms; but as the first bubo was still running, and, in consequence, the patient probably in a state to communicate infection to others, the eruption of the new bubo cannot, I think, be considered as a fresh attack of the plague. In the preceding case, where there was no suspicion of re-infection, the last bubo did not appear till the 24th day.

C A S E CX.

A Christian child was seized with the plague, about the nineteenth of June, and had two buboes in each thigh. Those in the right thigh came to suppuration, and discharged moderately for several days; the others dispersed.

On the twenty-ninth of July, the child was brought to me with a bubo in the left thigh, which had appeared about the 27th day of the disease.

The first bubo, in this case, was healed up only a few days before the eruption of the second, and, the discussion of buboes being always very slow, it may be suspected that the second bubo was no more than one of the former buboes, which swelling had not been completely dispersed.

The four following cases were considered as re-infections, though some objection perhaps may be made to the first.

A Christian woman was seized with the plague on the seventeenth of June, 1762, and a bubo appeared, a few hours after, in the right thigh. She passed very easily through the disease, and the bubo gradually dispersed.

She went to the bagnio on July the twenty-seventh, and, on her return, a bubo appeared (as far as she could judge), precisely in the place of the former. The eruption of this swelling was accompanied with no perceptible fever, or other disorder. When I saw the tumor on the 4th day, it was pretty large, and beginning to inflame externally.

Instances of the eruption of new buboes, as late as the 27th, or 28th days, have been given before, (Cases CIX. CX.) but such were not suspected to be new infections. In the present case, a bubo was protruded forty days after the first attack, exactly in the same place where the former bubo had been, and its eruption was attended with no symptoms of disorder. This last circumstance may render it doubtful, whether the new swelling might not be rather a resuscitation of the first bubo, not entirely dispersed, than a new infection, was it not that there appeared no ground, from the history, for questioning the dispersion of the first bubo. The absence of febrile symptoms was a circumstance sometimes remarked also, in the first attack of the plague.

C A S E CXII.

A Christian middle aged woman, had been taken with the plague about the sixth of June, 1762, and had two buboes; one in the right groin, which opened of itself some time in the third week, and, after discharging moderately for eight or ten days, healed up; the other in the right axilla, which dispersed. She recovered favourably, and, at the expiration of forty days, went to the bagnio, according to custom.

Upon her return from the bath, (July seventeenth) She was seized with a chilness, succeeded by a pretty strong fever, and a bubo was protruded in the left axilla.

On the 3d day she came to me, and gave the above account of herself. The fever was very slight. The bubo was larger than a pigeon's egg, and seemed tending to suppuration, though the skin externally was not yet inflamed. The usual topical remedies were directed, and she was desired to let me know how she went on; but I heard no more of her.

In case CXI. the eruption of the new bubo was in the same place with the old one, and was attended with no disorder: in the present, the symptoms resembled

resembled those of a first attack of the disorder, and the bubo was in a situation entirely different.

CHAP
I.

C A S E CXIII.

1762.
June.

A Jew girl, nineteen years of age, was seized with the plague about the thirteenth of June, 1762, and confined to her bed eight or ten days, after which she was able to walk abroad. The left parotid had swelled at the beginning, and made a more rapid progress than those tumors commonly do; for it opened of itself in the second week, and continued to discharge during several days. From that time the girl considered herself as perfectly well.

When the ulcer healed up, the swelling was not entirely dispersed; but it gave her no pain, and she was told that what remained would disappear by degrees. At the end of the month she was advised, as the best means of getting rid of the remaining induration, to go to the bagnio, and was induced, on that consideration, to comply with the advice, though ten days earlier than the usual period.

On the thirteenth of July, while in the inner room of the bagnio, she complained of sharp pain in the right parotid, and, on her return home, was taken with a violent fever, preceded by a shivering, and accompanied with oppression at the heart, and great inquietude, in which state she remained all night.

I saw her the day following. The fever had declined towards morning, but she complained of nausea, and of a strange confusion in her head. The parotid was very painful, and more swelled (by her account) than yesterday.

It was uncommon to see a parotid come so soon to maturation. The eruption of the new tumor was accompanied with such pestilential symptoms as seemed sufficiently to characterise a fresh infection; unless it should be thought that the remaining induration showed her to have been not free from the first infection. Had the left parotid again become painful, instead of the right, the case would certainly have been more doubtful, especially considering thirty days only were elapsed from the first attack.

C A S E CXIV.

A Jew boy, four years old, was taken with the plague on the fourteenth of May, 1762. The only eruption was a parotid on the left side, which opened the 10th or 11th day of the disease, and continued discharging till the end of the first week in June. The little patient, being to all appearance perfectly well, was carried to the bagnio on the 31st day. Upon his return

CHAP. I. home, he became feverish, extremely restless, and continued so till the evening of the next day, when he had several pretty strong convulsive fits.

1762.

June.

The 3d day. A small vesicle was observed on the left wrist, and the child became dull and sleepy; in which state he was brought to me in the evening. The mother, conceiving it impossible that the child should be infected a second time, could not be persuaded that this eruption was a carbuncle, and therefore nothing more was ordered than to apply an emollient cataplasm.

The 4th. The child remained drowsy as yesterday, but the carbuncle had spread, and was extremely painful. In the afternoon, and in the evening, he suffered several severe exacerbations of fever, and was comatous most part of the night.

The 5th. He continued still comatous. The carbuncle was considerably enlarged, and black in the middle; and the whole arm was much swelled. He expired in the night.

He took no medicines, except ten grains of contrayerva powder, on the night of the 4th, and on the morning of the 5th day.

There can be little doubt of this case being a real second infection, and that too of the worst kind.

C A S E CXV.

A Christian child, about five years old, sickened on the twenty-first of June. The eruptions were a bubo on each thigh, and one in the right axilla. These tumors dispersed, and the patient, after the first ten days, appeared to be perfectly well.

July. On the twenty-seventh of July, this child was again attacked with a fever, accompanied with a vomiting, in which several worms were ejected, and, on the second day, the right parotid swelled.

I saw this patient, for the first time, on the 6th day, (Aug. 1.) and from the appearance of the tumor, as well as from other circumstances, judged it to be pestilential.

The tumors in the first attack, had dispersed, a circumstance which has been supposed to render a person more liable to a second; but that matter, so far as I could observe, is by no means clear. See book ii. chap. vi.

C A S E

C A S E CXVI.

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I.

A girl, about six years old, was brought to me on the twenty-first of July, 1762; she had three days before been taken suddenly with a fever and vomiting, and, on the day following, two of the cervical glands swelled, and were very painful.

1762.

July.

The 4th day. She still continued feverish, the tumors were extremely painful, and slightly inflamed externally. This girl, (by the mother's account) had, in the month of April, been ill of the plague, accompanied with a bubo in the axilla, and a carbuncle on the leg.

The child had never been subject to the tinea, nor to eruptions of any kind upon the head; and from the mode of the attack, and appearances on the 4th day, I deemed her case to be a re-infection.

In this case again, the bubo had dispersed; but there had been a discharge from the carbuncle.

C A S E CXVII.

1761.

October.

An Armenian girl, between seven and eight years old, was seized with the plague, on the third of June, 1761. A bubo appeared in the right axilla on the second day, and a carbuncle was soon after protruded on the right side. She had a vomiting the two first days; and the febrile symptoms continued to run high till the end of the first week. The bubo, advancing favourably to maturation, opened the 20th day. The carbuncle spread to nearly twice the size of a crown piece, and, after the separation of the black crust in the second week, continued to discharge copiously for more than a fortnight. The discharge from the bubo was also considerable, and the ulcer was not completely healed till about the end of August. From that period, the girl, who had been greatly weakened, and emaciated, began to recover apace, and, though still pale and feeble, she was in other respects very well by the middle of September.

On the fourteenth of October, she was a second time attacked with the plague. A bubo appeared in the left thigh, accompanied with the most alarming symptoms, and she expired on the 4th, or 5th day of the disease.

In this case the discharge from the eruptions, in the first attack, had been very considerable.

CASE

CHAP.
I.

C A S E CXVIII.

1762. A Christian poor man, aged about thirty, had been infected in the month of March, 1762, and confined to his bed for a few days, by the violence of the disorder; but, his circumstances not admitting of indulgence, he was obliged to quit his bed before he had got rid of the fever. A bubo in the right axilla came to maturation, opened of itself, and continued discharging copiously for near a month.

July.

Towards the latter end of June, some persons happened to be taken with the plague in the same house; and he, on a presumption of not being liable to it a second time, assisted to nurse them, without dread or apprehension. While employed in this way, he was, on the fourth of July, taken with a slight shivering, followed by a fever, and a bubo immediately appeared in the left thigh. He was bled that night. The fever on the three following days, was, in his own opinion, much more violent than that which had attended his first attack in the month of March, and, it was not till the fifth day, that he was able to walk to my house.

The 5th day. He had sweated once or twice inconsiderably, but the fever was now moderate. The bubo had made little or no advance, but the pain of it incommoded him in walking. His countenance was not altered, and he was in good spirits. A sudorific was ordered, and a plaster was applied to the tumor.

The 8th. The fever had left him yesterday; the bubo was discharging, and he found himself free from complaints.

This was a slight case of re-infection. The bubo, in the first attack, had discharged copiously.

C A S E CXIX.

June. A young man had been infected in the month of March, 1762. The sole eruption was an inguinal bubo in the left side, which dispersed by degrees, and the patient recovered favourably.

On the twenty-eighth of June, 1762, he was taken suddenly with a nausea, head-ach, and fever, and felt a shooting pain near the place of the former bubo. The part being examined, a small, hard, painful tumor was discovered deep under the skin.

When he came to me in the afternoon, the fever was very slight, and the tongue retained its natural colour, but his countenance was confused and dejected. Diaphoretic medicines were ordered to be taken night and morning.

The 2d day. Having sweated a little in the night, he found himself a good deal better towards morning. The bubo seemed rather to have decreased, and was less painful than yesterday.

The 3d. He had sweated again last night, and very little fever remained. The bubo had decreased in size. As he still complained of head-ach, and of a slight nausea, fifteen grains of ipecacuanha were ordered to be taken next morning.

The 4th. The vomit had operated once only, but he was relieved by it, and had occasion for no more medicine. The bubo was scarcely perceptible.

This was another slight case of re-infection. The bubo in the first attack had dispersed.

C A S E CXX.

A Turk, aged about forty, of a robust constitution, was seized with the plague on the first of July, 1762, a bubo appearing, the same night, in the left thigh. The fever was pretty violent the first four days of the disease, and attended with frequent vomitings.

On the 8th day, he was brought to my house, supported by two assistants. The fever was then slight, the eyes muddy, and slightly inflamed; the tongue white. The bubo was situated near the crural vessels, of the size of a pigeon's egg, somewhat inflamed externally, and most extremely painful. He had not been bled, nor had he taken any medicine.

This man, as he informed me, had been infected in the summer of the preceding year, and confined to his house upwards of three weeks. The disease, at that time, was accompanied with five or six carbuncles, but no buboes.

The patient did not return a second time, and I had no opportunity of learning the event of the case.

It may be remarked, that there must probably have been a considerable discharge from the carbuncles, in the former attack, in the preceding year.

C H A P. II.

A general Description of the Seasons at Aleppo.

THE seasons at Aleppo are in general uniform. When they happen to vary in different years, it is principally in the winter and spring months, and then their variation is inconsiderable, if compared with the irregularities incident to more northerly regions.

Before entering into a particular account of the weather of those years, in which the plague was epidemical in Syria, it may be proper to take a survey of the seasons of that country in their ordinary course; in order to have some standard to refer to, by which deviations peculiar to the pestilential years (if such there are) may be more readily discovered. The account of the weather, given by my Brother in his Natural History of Aleppo, is so exact as to render it necessary to enlarge on a few circumstances only, which, by subsequent observations, in a series of eighteen years, have been established with more precision.

The weather, in the beginning of the spring, is cool and rainy, but, before the middle of March, it becomes variable and mild; the rain falls in short, but very heavy showers, and the clouds being dispelled by westerly breezes, the sky is clear, and chearful in the intervals. The sharp wintry winds, namely the easterly, northerly, and south-east, are predominant, however, till April; after which, they not only become less common, and less strong, but their quality is changed from cold to tepid, and they are often accompanied by thick, hazy weather, oppressively warm. There are always some days of this kind, in April, but the sky, for the most part, is either serene, or variegated only by white clouds: except when rain falls, which is more seldom than in March, and in showers of shorter duration. The spring, advancing rapidly in April, reaches its height towards the end of that month. The weather continues vernal for some time in May, but the solar heat, though attempered by showers, and westerly breezes, grows daily more potent; the verdure of the fields disappears rapidly, and, about the middle of that month, the spring gives place to summer.

The spring rains fall chiefly in March, it is seldom that April can be called a wet month, and, generally, there are only a few showers in May. The quantity of rain that falls between the first of March, and the fifteenth of May, varies considerably in different years. The ordinary quantity is

from twenty-one, to thirty; the extremes being sixteen and fifty-three. The greatest number of rainy days in any year was, according to the register, thirty-seven, the least fourteen; the ordinary number was from nineteen, to twenty-five *.

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The first weeks of the summer are temperately hot. There are usually some showers in May; the sun is often transiently obscured by white clouds; and westerly breezes, for at least some hours of the day, are pretty constant. It is seldom that any rain falls later than the first week in June. Transient clouds are less common also; yet they still, now and then, make their appearance about noon, and join with the westerly breeze in moderating the heats, which increase considerably in calms, or when the wind shifts to the easterly, or the northerly points.

During the month of July, as well as the greatest part of August, the sky is commonly quite serene, and the heat of the weather, if not mitigated by westerly breezes, becomes excessive. But, in general, those winds are regular in their diurnal return, blowing briskly throughout the day, and sometimes also in the night: in proportion as they languish, the heats increase, and when they fail entirely, the nights become sultry and oppressive.

Yet calms are more supportable than easterly, northerly, or southerly breezes. When those predominate, the sky appears of a paler blue, the horizon is hazy, the air becomes dry, and excessively hot, and the winds, more or less strong, are rather productive of languor, than refreshing. These

* The quantity of rain was computed in the following manner: A small shower was, in the register, marked thus (\); and when several interrupted showers fell in the same day (which often happened in the spring) two or three of the same marks denoted a showery day. When the rain continued with little or no intermission for the twenty-four hours, the day was marked with four crosses, thus (XXXX), and with three or less, in proportion to the diminished quantity of the rain that fell. Two of the marks (\) were reckoned equal to one cross (X), and the number of crosses added together gave the monthly quantity of rain.

The same method served also for snow, only that dots were used in place of crosses. One dot (.) denoted one short shower; two (..) the continuance of the snow for three or four hours, and so in proportion, as far as four, (....) in the same day. The sum of all those dots gave the whole quantity of snow in the month.

A single shower of rain, or of snow, was sufficient to denominate the day rainy or snowy; which may account for the number of rainy days in the spring appearing sometimes greater than in the winter, although the quantity of rain that really fell was much less.

This mode of computation, though not sufficiently accurate to qualify the observations for a comparison with such as have been made in other situations, with the advantage of proper instruments, may assist in forming some judgment of the correspondent seasons at Aleppo, in different years, relatively to one another.

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II.

winds, providentially, are rare in the summer, and of no long continuance*. They occur however more frequently than the true hot wind, which blows in brisk gales from the east, and continues, sometimes, for many hours.

Towards the end of August, the Nile clouds (as they are called) are usually observed to pass over the city, and, soon after, there is a sensible alteration in the state of the air. The limits of the summer may properly be placed at that period.

The autumn commences with September, and ends with November. The heats are lessened, during some days in the beginning, by the interposition of the Nile clouds, which, besides intercepting the rays of the sun, probably impart some moisture to the atmosphere; for nocturnal dews, which are very seldom observed in the summer, become from that time common. But it is not long before the sky resumes its usual brightness; the westerly winds, growing fainter and less constant, give place to variable light breezes, or to perfect calms; and the weather continues sultry in the day time, till refreshed by the fall of the *first rains*. This happening, in general, about the autumnal equinox, is succeeded by a track of clear, pleasant weather, during which the freshness of the mornings and nights increases by an easy gradation.

The *second rains* produce a more sudden and sensible alteration in the temperature of the air, and the weather becomes from day to day more variable. These commonly fall in October, though they sometimes delay till the second fortnight of November. In the latter case, the pleasant autumnal season is protracted; but if they fall in October, it is in longer, heavier showers, and the weather continues bleak and gloomy for several days together. Towards the end of November, the mornings are sometimes frosty, and, if heavy rains have fallen, most of the trees are divested of their leaves.

The autumnal rains are less considerable than those of the spring, but like them are often accompanied with thunder, and vary as to quantity in different years. The usual quantity is from ten to twenty, the extremes eight, and forty-four. The greatest number of rainy days was twenty-two, the least six. The most common number was from eleven to sixteen.

The bright intervals, so frequent in November, and by which the transition to winter is rendered slow and gradual, are less common in December. The weather grows colder apace; it rains in showers less heavy, but more constant; the sky between whiles, except in frost, is deformed by

* Russell's Natural History of Aleppo.

heavy black clouds, or covered with a settled gloom, and thick fogs are frequent in the mornings: in all which circumstances, January agrees with the last fortnight of December.

The winter seldom or never passes altogether without frost. In some years the frost is rigorous, but in general it is moderate, and of short continuance. The greatest number of frosty days, observed in the same winter, was fifty-one, the least four. When the frosty days are not fewer than twelve, or exceed twenty-four, the winters are reckoned moderate; from twenty-four to forty, denominates the winter rather severe; but where the number of frosty days exceeds forty, (which happened in two only of eighteen years) the season is deemed extraordinary rigorous. While the frosts last, if there be no wind, the weather is perfectly clear, the mercury in the barometer stands at about 29, and the air is cold till the sun approaches the meridian, when the ice, unless in the shade, begins to thaw. When there is wind, the sky is commonly more or less cloudy, the sun has less power, and the air continues all day piercingly cold.

The frosts are often accompanied with snow. In five only, of eighteen winters, no snow fell. In the more severe winters, the snow continues unmelted on the ground for many days, and sometimes remains unmelted even in the streets. But it more frequently melts as it falls, and, in general, remains only a few days on the ground. As to the quantity, unless in extraordinary years, it is not considerable. In common it was about six. The extremes were twenty-one, and two. The greatest number of snowy days, in the same winter was eight or nine, and that happened in three years. In five of the others, there were no more than two or three snowy days; and in the five remaining winters, the ordinary number of snowy days was four.

A cloudy wet constitution, the thermometer fluctuating between forty-two and fifty, is of all others the most generally predominant in the winter; but the quantity of rain which falls in different years varies very much. The greatest quantity observed in any year was ninety-one, the least twenty-one. When it is less than thirty, the season is reckoned unusually dry. From thirty to sixty is reckoned moderate, and within these limits the quantity of rain varies in ordinary winters. From sixty to seventy is esteemed wet, but when the quantity exceeds seventy, the winter is then wet in an extraordinary degree. The greatest number of rainy days was forty-seven, the least eighteen. The number in ordinary years was from twenty to thirty-six.

Rain falls through the three winter months. The frosts and snow happen chiefly between the twenty-second of December, and the end of January.

CHAP. II. The frosts sometimes set in earlier, but are oftener protracted till the second week of February; commonly, however, they are prevalent in the period just mentioned, which constitutes the *maarbanie* of the natives *.

The winter is seldom so rigorous as to exclude, even in the *maarbanie*, the intervention of a few mild bright days. Towards the end (that is from the middle of February) the weather becomes variable, and there are intervals perfectly vernal. Vegetation begins every where to revive, and several of the trees are in blossom.

To the foregoing description of the seasons, I shall subjoin two tables, formed from the meteorological register. The first is intended to exhibit a comparative view of the extremes, together with the usual height and variation of the thermometer, in the respective months of five years. The second to shew the extremes of the barometer in the same years; as also the winds, the number of rainy, and of snowy days, the earthquakes, and eclipses.

In order to facilitate a comparison with the general account of the weather in my brother's *Natural History of Aleppo*, I have allotted, in both tables, a column for a short abstract, from that account, of such matters as concern them respectively; but, in making the comparison, it should be remembered that the *History*, on that occasion, observes the Julian stile.

The same barometer and thermometer which had served for the observations in the year 1752 and 1753, have been used ever since, and kept almost constantly in the situation described by my brother †. When they happened to be removed, during some months in the pestilential season, the observations were adjusted by means of other instruments with which they had previously been compared; so that the same instruments, and the same situations are understood all along, for the eighteen succeeding years.

* A term consisting of forty days. The natives, during the *maarbanie*, abstain from the use of medicines in all distempers that, without immediate danger, admit of delay.

† *Russell's Natural History of Aleppo*.

EXPLANATION OF TABLE I.

T A B L E I.

A N Abstract, from RUSSELL's Natural History of Aleppo, of the height and variation of the thermometer, possesses the first column. The three pestilential years, with the year preceding them, and that which immediately followed, are distributed in the other five columns. The letters a and b, in the first division of each month, denote the greatest and least height of the thermometer in the respective months; the instruments having been observed morning and afternoon.

The second division C, shows the usual height of the thermometer in the mornings, throughout the month; as the third division D, does the common variation in the same day, or the difference between the morning and evening observation. The small figures are generally placed in the same order in which the variation took place in the course of the month.

EXPLANATION OF TABLE II.

T A B L E II.

CONTAINS six columns. In the first, is given a general account of the barometer, winds, rain, &c. extracted from the Natural History of Aleppo. The other five are allotted to the respective years. The letters a and b, denote the greatest and the least height of the barometer. The letter c, denotes the winds most commonly prevalent. The letter d, in the fourth division, shows the number of rainy days in the respective months; but in the first column, where there are two numbers, as in January ix-vi, the number of rainy days is meant to have been, in general, from nine to six. The letter e shows the number of snowy days in the three winter months. And, the last division F, is allotted to Earthquakes, Eclipses, and Comets.

General Account.		1759.	1760.	1761.	1762.	1763.	
January.	a	57	46	46	43	47	42
	b	34	36	30	32	26	30
	C	40 46	38 37	43 40 42	40 38	43 36 40	33 40
	D	3 4 0	4 6 7	3 0 3	4 6 3	3 2 4	2 6 3
February.	a	55	48	55	49	53	54
	b	40	28	32	31	40	28
	C	42 47 50	38 28 42	36 40 48	28 31 46	41 46	30 42
	D	1 2 3 5	4 2 6 5	2 0 5 4	3 0 5 4	1 2 4 5	1 3 2 6 0
March.	a	67	60	60	59	59	62
	b	44	38	38	43	46	46
	C	50 52	38 47 54	48 40 52	48 50 45	48 52 55	47 50 58
	D	5 8 9	4 6 3 8	4 0 9 3	7 5 4 0 2	3 5 6	4 3 0 5
April.	a	82	71	68	78	66	
	b	51	53	47	49	55	
	C	66 66	56 62	52 55 62	50 62	59 60	
	D	8 10	7 8 0 9	7 6 5 2	4 7 8 2 12	3 4 7	
May.	a	92		80	82	82	
	b	67		62	55	65	
	C	70 76 80		63 66 70	67 57 67	65 69	
	D	6 9 9		7 1 0 8 2	16 11 10 12	6 8 10	
June.	a	96	94	89	89	89	89
	b	76	69	69	70	65	66
	C	76 80	74 81	70 74 77	72 78 75	67 72	73 68 77
	D	8 12	9 8 13 14	8 9 3 10 12	11 14 9 10	7 10 5 15	2 6 10 12 16

T A B L E I. continued.

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General Account.		1759.	1760.	1761.	1762.	1763.
July.	a	101	95	94	95	94
	b	77	71	75	78	74
	C	80 85	79 81	76 83 81	78 80 83	74 78 86
	D	8 10	11 10 12 14 16	6 7 9 10	11 14 10 12	8 10 7 9 14
August.	a	97	95	96	91	94
	b	74	74	75	76	80
	C	80 75	84 78 82	82 88 87	80 79	80 83
	D	8 7	10 6 9 12	8 7 6 10	11 8 5 9	11 12 8 9
September.	a	92	90	94	85	90
	b	62	64	73	71	71
	C	75 70 65	78 72 64	82 79 74	76 74 76	82 75 63
	D	3 9 3	7 9 6 2	12 16 5 13	6 7 8	8 9 6
October.	a	84		84	82	77
	b	51		62	67	63
	C	72 60		76 70 62	76 70 69	63 70 67
	D	5 6 4 2		12 8 14 6	7 6 5	7 9 6 4
November.	a	65	69	66	69	69
	b	44	52	46	49	52
	C	60 50	63 59 52	62 59 46	65 53 51	58 54
	D	5 3 2	3 0 5 4	4 5 6 2	4 2 0 5	8 7 5 2
December.	a	55	57	49	55	54
	b	40	46	39	37	28
	C	56	50 47	40 39 46	54 30 44	51 46 30
	D	3 0 2	4 0 3 2	0 2 3 4	0 2 1	0 2 1 5

T A B L E II.

		General Account.	1759.	1760.	1761.	1762.	1763.
Jan.	a b C d e F	29,3 28,6 N. E. IX-VI 3 Yrs. in 10	29,1 28,6 IX 0	29 $\frac{1}{2}$ 28,5 E. N.E. XIV 2 Earthquake	29,1 28,5 E. N.W. N. X 4	29 $\frac{1}{2}$ 28,5 $\frac{1}{2}$ E. N.E. VIII 2	29 $\frac{1}{2}$ 28,5 E. E.N.E. VIII 4
Feb.	a b C d e F	29,3 28,4 N. E. W. IX-VI 4 Yrs. in 8	29,2 28,4 V 4	29 28,5 E. N.E. XIV I Earthquake	29 28,4 N. W. E. V 4	28,9 28,4 $\frac{1}{2}$ E. N.E. S.E. XVIII 0 Earthquake	29,1 28,6 N. E. E. V 0
March	a b C d e F	29 28,6 E. W. N.E. IX-III	29,1 $\frac{1}{2}$ 28,3 $\frac{1}{2}$ E. W. N.E. IX	28,9 28,2 E. S.W. XVIII	29 28,5 E. W. N.W. XIV	28,9 $\frac{1}{2}$ 28,4 N. E. N.E. X	28,9 $\frac{1}{2}$ 28,4 $\frac{1}{2}$ N. N.E. W. XI
April	a b C d F	29,1 28,5 W. N.E. IX-II	28,9 $\frac{1}{2}$ 28,5 $\frac{1}{2}$ W. IV Comet	28,9 28,5 S. N.E. E. IX	28,9 28,6 S.E. W. E. W. IX	28,9 28,5 $\frac{1}{2}$ E. S.W. N.E. VI	28,9 28,5 $\frac{1}{2}$ E. W. XI
May	a b C d	29 28,6 N. W. E. VIII	28,8 $\frac{1}{2}$ 28,6 $\frac{1}{2}$ W. E. I	28,8 $\frac{1}{2}$ 28,5 E. W. N.E. X Earthquake	28,8 28,6 S.W. W. S.E. V Eclipse	28,9 28,6 E. W. N.E. VI	28,9 28,6 W. W. I
June	a b C d	29 28,5 W. I	28,8 28,6 W. 0 Earthquak	28,7 $\frac{1}{2}$ 28,4 $\frac{1}{2}$ W. I	28,8 28,4 $\frac{1}{2}$ W. S.E. S. I	28,7 28,4 $\frac{1}{2}$ W.E. IV Earthquake	28,8 28,4 $\frac{1}{2}$ W. II

T A B L E II. continued.

		General Account.	1759.	1760.	1761.	1762.	1763.
July	a b c d f	29 28,5 W. F	28,7 28,5 W. F	28,7 28,4½ W. ○	28,7 28,4½ E. W. S. ○	28,7 28,5½ W. ○	28,6½ 28,4 W. ○
August	a b c d f	29 28,4 W. I F	28,7 28,5 W. I F	28,7½ 28,5 W. ○ Earthquakes	28,7 28,5 W. ○ Earthquakes	28,7 28,5½ W. E. I	28,7 28,5 W. N.E.
Sept.	a b c d	29 28,6 W. IV-I	28,8 28,5½ W. II	28,8½ 28,7 W. II	28,8 28,6½ W. E. I	28,8 28,6 W. II	28,8½ 28,1 W. I
Octob.	a b c d	29 28,6 Variable XII	28,9 28,7½ E. IV Earthquakes	29,1 28,6 W. E. I	28,9 28,7 W. E. III	29 28,7 N. E. Var.	28,9 28,6 N.W. E. Var. VII
Nov.	a b c d f	29 28,4 N. E. XII	29 28,7½ N. E. Var. XI Earthquakes	29 28,6 N. Var. E. E. XIV	29 28,6 N. ○ N.E. Var. VIII	29 28,7 N. N.E. Var.	28,3½ 28,6 E. N. N.E. Var. XIV
Dec.	a b c d f	29,1 28,4 N. E. XVI-VI	29 28,5 N. ○ E. XIII ○ Earthquakes	29,1½ 28,7 N. N.E. E. S. XII	29,1 28,5 E. N.E. S. XIII 2	29½ 28,5 E. Var. N.E. V 2	29,1½ 28,6 E. S. N.E. Var. X ○ Earthquakes

An Abstract of the Weather in the three Plague Years.

IN the following account, each month, being described separately, is divided into the first and second fortnight, and the descriptions are arranged in correspondent columns, in order that the weather, in the respective months of different years, may more easily be compared. As the constitutions of the year immediately preceding the plague might be considered to have had some influence also, the weather of the year 1759 is likewise given.

An abridged monthly Description of the Weather.

1759. JANUARY.

The weather, during the first nine days, was gloomy and rainy, after which, frosty till the 15th, when a good deal of rain fell.

Of the second fortnight, the two or three first days were gloomy, the remainder clear frost, the two last days only excepted.

FEBRUARY.

A good deal of cloudy, rainy weather in the first week; in the second an uncommon quantity of snow fell; from the 13th, an intense frost.

1760. JANUARY.

From the 2d to the 12th, much gloomy, rainy, or foggy weather, to which succeeded two clear frosty days, and then the rain returned.

Between the 15th and 21st, a good deal of rain fell, after which, the weather changing to hard frost, the sky was serene till the 23d, when it began to snow, and continued snowing all the day following. The remainder of the month remarkably foggy. The snow began to thaw the 27th, and it rained a little, but no considerable alteration happened in the thermometer before the 30th, about which time also some more rain fell.

FEBRUARY.

The weather, during the first nine days, cloudy, with a good deal of rain. From the 9th to the end of the first fortnight, clear frost, excepting the 13th, when a little snow and sleet fell.

The

In

1761. JANUARY.

The weather, in the first fortnight, frosty; the sky for the most part clear. The second week was constantly dark and rainy.

From the 15th to the 21st, a good deal of cloudy weather, with some rain, and a little snow. From the 21st clear frost till the 23d, when a little rain fell. The remaining days of January remarkably cold, it was generally overcast, and often threatened snow, but a very small quantity only fell on the 17th, and the two last days of the month.

FEBRUARY.

The beginning of the month serene and frosty. From the 3d to the 9th gloomy hazy weather, and an uncommon deal of snow. From the 9th to the 14th gloomy and rainy.

From

1762. JANUARY.

At the beginning, dark and rainy. From the 3d to the 7th cloudy, and in the mornings sometimes foggy. On the 7th and 8th a good deal of snow, after which clear, and hard frost.

The frost continued till the 19th, after which, till the 27th, much gloomy weather, with a good deal of rain. Two or three clear days intervened, and the rain returned.

FEBRUARY.

The weather gloomy and wet, during the first fortnight.

s 2

From

CHAP.
III.

1759. FEBRUARY.

The frost continued till the 22d, and the snow lay in several places till so late as the 24th of the month. The last six days were mild, clear and cloudy, by turns.

M A R C H.

During the first eleven days, the weather was very mild, the sky often cloudy, or overcast, but little rain fell. The four last days of the fortnight rainy.

From the 15th to the 19th gloomy and rainy. The remainder of the month fair; but the east winds being predominant, the sky was often hazy, or cloudy.

A P R I L.

The first week serene and temperate. On the 8th and 9th, a good deal of rain, and the weather became cool. Some showers towards the end of the fortnight.

From the 15th, the weather continued cool and clear till the 18th, from which time, till the 22d, it was close and warm. The remainder of the month fair, and cooled by fresh westerly winds.

The

1760. FEBRUARY.

In the last fortnight, moderately cold, the first week being wet and cloudy, and the last alternately cloudy and clear, with hard showers of rain. There were a few thunder storms, which are not common in this month.

M A R C H.

After the two first days, (which were serene) much cloudy, showery weather, till the 8th, from which to the 13th, a great deal of rain. The two last days were serene and frosty.

From the 14th to the 17th gloomy, and remarkably wet; the rest (two or three serene days excepted) for the most part cloudy and showery. An unusual quantity of rain fell the two last days of the month.

A P R I L.

The first fortnight remarkably cloudy and cold, with several hard showers of rain. Fresh westerly winds.

From the 15th to the 19th serene, and then, the wind changing to the east, it became hazy, close, and warm. From the 23d to the 28th, cloudy, with some violent storms of thunder, lightning, and rain. The few last days of the month were clear and temperate.

The

1761. FEBRUARY.

From the 15th to the 25th, serene pleasant weather, and in general temperate. The end of the month perfectly vernal, with gentle showers of rain.

M A R C H.

The first week serene pleasant weather; the second alternately cloudy and clear, with some rain.

The last fortnight remarkably cold and wintry, accompanied with much rain in the beginning, and towards the end.

A P R I L.

Gloomy wet weather to the 5th, from which to the 8th, variably cloudy and clear alternately, but without rain. After this, to the end of the first fortnight, clear, with light easterly winds. From the 11th unusually warm.

The weather clear and warm till the 17th, when (the wind changing westerly) it became cloudy, and several showers fell daily till the 23d. From this to the 26th the east wind was predominant, and the weather, in consequence, warmer. The rest of the fortnight temperately cool.

The

1762. FEBRUARY.

From the 15th to the 20th, fair, and sometimes frosty. From the 20th to the end, clear and cloudy by turns, with vernal showers.

M A R C H.

The weather, in the first fortnight, was often cloudy, or overcast, but no great quantity of rain fell.

From the 15th, a good deal of close hazy weather, and the sky was often cloudy. From the 20th to the 24th, and on the last day of the month, several heavy showers. The easterly, and sometimes westerly winds blew remarkably strong in the night.

A P R I L.

The first fortnight often cloudy and overcast, but no rain fell, excepting on the 5th, and some inconsiderable showers after the 11th.

From the 14th to the 27th for the most part clear, with light southerly or easterly winds during the day; but at night hard gales from the west or north-east. The three last days gloomy and hazy, with some thunder showers.

A good

CHAP.
III.

1759. M A Y.

The weather serene till the 6th, when it became cloudy, and several thunder showers fell. From this to the 12th, white clouds frequently appeared. About the 12th, the wind, hitherto moderate at west, changed to easterly, and brought on hazy close weather.

The 16th, a little rain fell; after which, to the 25th, the weather became serene and hot, with light breezes and calm. The rest of the month serene, but cooled by fresh westerly winds.

J U N E.

The first fortnight (excepting a few white clouds) serene, and, after the 5th, rendered cool by a fresh west wind. On the 10th, 11th, and 12th, some dark passing clouds threatened rain. It often lightened from the north-west.

The latter fortnight (the sky being constantly serene, with little wind) the
5 weather,

1760. M A Y.

The weather, in the first week, was rather cooler than ordinary, though the sky for the most part was serene, and the westerly winds not fresh, till after the 5th. From the 9th much gloomy weather, with frequent thunder showers.

From the 15th to the 22d, cool, cloudy weather, and hardly one day without thunder showers. The remainder of the months unusually cloudy, though no rain fell. The west wind (less strong than usual) was predominant in the last week.

J U N E.

The sky was serene in the morning and the evening, but constantly about noon, and during part of the afternoon, was overspread with white clouds; a circumstance that, together with a moderate west wind, contributed to render the weather most remarkably cool.

The cool weather continued to the 25th. From the 17th to the 20th, a
strong

1761. M A Y.

The first fortnight was unusually cool, a strong westerly wind blowing constantly, and some times stormy, with heavy black clouds. There were some hard showers of hail and rain towards the end. The sun often obscured by white clouds passing.

This cloudy weather continued during the greatest part of the 2d fortnight, but, the west wind blowing faintly, the weather grew gradually warmer than usual. Towards the end, light easterly or northerly breezes, with close sultry weather. On the 26th and on the 30th, hard thunder showers.

J U N E.

The first week hot, though white clouds were frequent, and the west wind blew gently and regularly. The beginning of the second week, the wind changed to the east, the barometer fell, and there were some showers. From that to the end, much cloudy, blustering weather in the night.

In the day time, the wind was often strong at north east, bringing on close hazy weather, remarkably disagreeable. At other times it changed to the north, or south of west, and refreshed the air for a few hours, but soon gave way to light breezes.

The second fortnight, to the 20th, for the most part calm and serene. From that

1762. M A Y.

CHAP.
III.

A good deal of cloudy weather, with light easterly breezes, in the first week. Some thunder showers, with hard gusts of wind, on the 5th and 6th. The second week, for the most part, clear, with a fresh west wind, after the 10th.

The weather, in general, cooler than last year.

From the 15th to the 21st, calms, or light western breezes; it was often cloudy, and, on the 18th, some rain fell. From the 21st to the 26th, heavy clouds frequently appeared in the west, and the wind from that quarter was sometimes boisterous. The remaining days rather hot; the wind variable at north-east or south.

J U N E.

There was only one shower in the first week, but a good deal of cloudy weather. In the beginning of the second week a great quantity of rain fell; and, on the 10th, such continued showers, attended with so settled a gloom, that the whole day was perfectly wintry.

Much less wind than in the preceding year, but the weather cooler, and the thermometer all along lower, by several degrees.

From the 15th to the 21st large clouds appeared towards night, and the

CHAP.
III.

1759. J U N E.

weather, as usual, became gradually hotter. The two last days, only, were cooled by a fresh west wind.

J U L Y.

In the first fortnight, (a few days at the beginning excepted) the weather was remarkably cool. The sky was perpetually serene, but the west wind blew fresh, and constantly.

The weather (in respect to the season) remarkably cool, as in the first fortnight. A few white clouds appeared about the middle of the month, and some heavy clouds towards the end, but otherwise the sky was constantly serene.

1760. J U N E.

strong west wind was predominant, after which, the weather continued most remarkably cloudy and stormy, with much thunder, and it often threatened rain. One hard shower fell the 21st. From the 25th the sky was clear, and the weather became as usual in other years, but the winds continued boisterous.

J U L Y.

During some days at the beginning, the west wind was boisterous, and the sun was sometimes obscured by white clouds. From the 6th, serene, little wind, and of course hot. About the 12th, upon the wind's freshening, it became more temperate.

The sky constantly serene, excepting a few days when some white flying clouds passed. The west wind constantly fresh, and the weather temperately cool.

1761. J U N E.

that time, the strong variable winds returning, and large heavy clouds passing in the day, the weather became very cool. After the 26th, serene, little wind, and hot.

J U L Y.

The first week serene, and very hot. The second week refreshed by the regular return of the west wind every day.

A phenomenon (not uncommon in very hot weather) was observed the 14th of this month, in an extraordinary degree. The horizon to the S., S. S. W. and W. appeared of a dusky red colour, and the air seemed as if replete with dust. This continued till the afternoon, when the dust was dispersed by the springing up of the west wind.

During some days of the 2d fortnight, large white clouds passed, and dews fell in the night. From the 19th to the 22d, light easterly breezes, and hot. The 22d and 23d, boisterous west winds in the night, and very cool. The 24th and 25th hot. The rest of the month cool, with strong west winds. Heavy black clouds on the 27th and 28th.

In

1762. J U N E.

CHAP.
III.

the west wind blew fresh, sometimes stormy. From the 21st the sky constantly serene, but the wind continued fresh, and, excepting the two or three last days, the weather all along was much cooler than in the year before.

J U L Y.

The beginning rendered cool by a fresh west wind. After the 4th, the thermometer rose somewhat, and kept nearly the same station as in the last year. The mornings, till the 9th, were rather hot; after which, the west wind blowing fresh, the weather was constantly cool, for the season.

The weather continued cool to the 23d, when the heat increased somewhat, but not so much as usual. From the 25th to the 28th, some clouds passed, and a little dew fell. The west wind fresh. After the 28th, little wind, and hot.

t

The

CHAP.
III.

1759. A U G U S T.

The weather, during the first fortnight, (as in last month) uncommonly cool, the west wind blowing almost constantly fresh.

The cool weather continued to the 18th, when the wind failed, but that returning on the 22d, it again became cool, and dews fell in the night. The 25th and 26th, hot. On the 27th and 28th, a hot wind, with reddish heavy clouds to the westward, and the dust was raised in eddies, as usual before the autumnal rains. A little shower, attended with loud thunder, fell the afternoon of the 28th. The three last days, little wind and hot.

S E P T E M B E R.

The weather, in the first fortnight, became serene and rather warm, though the west wind was pretty constant, and sometimes freshened in the afternoon.

In the third week, white clouds often passed, but it still continued warm. On the 19th it blew hard, and the dust was raised, as usual before the autumnal rains. On the 22d, gloomy, with some small showers. A little more rain fell the 25th, and some hard showers the 27th. From the 25th the weather became much cooler, and the sky in the forenoon was often clouded.

A good

1760. A U G U S T.

Calms, or light western breezes, predominant to the middle of the month. Sometimes the east wind blew fresh in the night. The sky serene, and the weather very hot.

From the 14th to the 17th, white clouds were frequent, and the west wind was pretty regular in its diurnal return, so that, in general, the weather was temperately cool. Dews frequent in the night. The few latter days of the month very hot.

S E P T E M B E R.

Calm, serene, and hot, except one or two nights, when the air was cooled by moderate west winds.

The third week cooler, the west wind being fresh in the nights. The 19th, strong squalls of wind, heavy clouds, with lightening, and the dust raised in eddies. A small shower. The latter week resembled the first fortnight, only that the mornings and evenings were become pleasantly cool.

Clear,

A P P E N D I X.

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1761. A U G U S T.

In the first fortnight, the sun was sometimes obscured by dense white clouds, but the sky, in general, was serene. The west wind, for the most part, fresh, and the weather cool.

In the second fortnight, white passing clouds were more frequent, and the west wind, though not so fresh, was pretty constant. The weather still continued rather cool; and, on such days as were reckoned warm, the heat was not, by several degrees, equal to that of the year before.

S E P T E M B E R.

On the 2d several clouds appeared. Next morning a heavy shower fell, and the whole of that day was uncommonly cloudy and rainy. The weather after this became cool, the west wind being in general fresh, and white clouds passing in the day time.

On the 15th, a high wind, and clouds of dust flying about, but no more rain fell this month. From the 17th to the 21st, calm and warm. The nights of the 21st and 22d cool, after which calm hot weather to the 27th. The two succeeding days cloudy and cool. The two latter days of September serene, and calm, and the nights hotter than the day.

4

The

1762. A U G U S T.

CHAP.
III.

The first fortnight hot and sultry, the west wind freshning only a short time about noon. White flying clouds often appeared near the horizon to the N. W.

Between the 15th and 22d, a good deal of calm, dusky, gloomy weather, and on the 18th some showers of rain. The air, however, was not refreshed. The remainder of the month clear, little winds, or calms, and exceedingly hot.

S E P T E M B E R.

Calm, serene, and hot to the 5th, after which the air was somewhat refreshed by light breezes, and by the interposition of white clouds. Between the 5th and 8th, heavy clouds sometimes threatened rain, but none fell, excepting one inconsiderable shower on the 6th.

The second fortnight, to the 24th, perfectly clear, with little wind, and consequently hot. After which it became cooler, white clouds appearing frequently, and the sky being sometimes overcast. Towards the end of the month fresh westerly winds in the night. On the 29th, a short stormy shower sunk the thermometer from 71 to 63.

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The

CHAP.
III.

1759. OCTOBER.

A good deal of rain on the 2d and 3d, after which the weather was constantly serene, and (little wind blowing) it became rather warmer than it had been towards the end of September.

Serene and calm till the 22d, then light breezes, with cloudy weather; the mornings cool. On the 24th and 25th some rain, after which to the end (excepting the 30th) serene and calm.

NOVEMBER.

Serene and temperate weather at the beginning. From the 2d to the 13th gloomy and rainy. The last days of the first fortnight serene and temperate.

From the 14th to the 17th serene, from that to the 22d a good deal of cloudy weather, with some showers; it then cleared up again. From the 25th to the 29th, much gloomy rainy weather. The last days of the month serene. The air in general unusually warm.

DECEMBER.

For the most part serene, calm, and temperate to the 5th; the rest of the first fortnight gloomy, rainy weather.

From

1760. OCTOBER.

Clear, mild, and pleasant; one or two cloudy days intervened, but no rain fell.

Some showers and cloudy weather between the 15th and the 19th, particularly on the 17th, when it rained hard for one hour, accompanied with thunder and eddies of dust. From the 19th to the end, constantly serene and calm, so that it was often sultry in the day, and the mornings and evenings were less fresh than usual.

NOVEMBER.

The few first days clear and pleasant. From the 6th to the 12th overcast or cloudy, with some rain, and the weather became cooler. It then cleared up.

The beginning serene, but from the 17th much gloomy dark weather, with several short showers. After the 25th a great deal of rain fell. The weather cooler all the month than in the last year.

DECEMBER.

During the two first days continual rains. From the 3d to the 11th, frosty for the most part, and clear. The weather then became gloomy and rainy.

The

A P P E N D I X.

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1761. OCTOBER.

The first five days often cloudy, and a few drops of rain fell. The rest of the fortnight warm: the sky unclouded, and the nights quite calm.

From the 15th to the 26th, light easterly winds; the sky clear, and the air, during the day and in the evenings, rather warmer than in the first part of the month. It threatened rain on the 28th, but cleared up again, and continued close and warm to the end.

NOVEMBER.

A good deal of cloudy, gloomy weather in the first ten days, with short showers. From the 10th clear, frequent calms, or light breezes easterly, and the air temperate.

Fair, clear, and pleasant, to the 25th, the mornings growing gradually cooler. From the 25th dark and gloomy, with some rain, but the weather not cold: it sometimes blew fresh easterly, but calms and light breezes, as in the first fortnight, were still predominant.

DECEMBER.

The weather, at the beginning, cloudy and temperate. Some hard showers towards the end of the first fortnight. From the 8th to the 14th gloomy and cold, with a little snow and sleet. A good deal of rain on the 11th.

From

1762. OCTOBER.

CHAP.
III.

The weather, during the first four days, serene, but rather cool; after which it became close and warm, sometimes threatening rain. After the 9th clear, and, now and then, hard gusts of wind northerly or easterly.

The second fortnight (except two days) constantly serene. On the 21st some clouds appeared, and it lightened at night. On the 26th it rained all forenoon, after which the air appeared much cooler, although the thermometer sunk no lower than 63, which was its morning station at the beginning of the month.

NOVEMBER.

The first fortnight clear pleasant weather. The 11th only was cloudy, and in the night a good deal of rain fell, accompanied with loud thunder.

The second fortnight continued temperate, and pleasant, though the sky was sometimes obscured by transient clouds. In the night of the 19th and 25th, and on the 20th a little rain fell. The winds chiefly E. or N. E. and always gentle, except some squalls towards the end of the month.

DECEMBER.

The first week gloomy and rainy. The second serene and frosty, but not intensely cold.

The

CHAP.
III.

1759. DECEMBER.

From the 15th to the 26th, fair pleasant weather, the mornings and evenings, only, being sometimes foggy. From the 26th gloomy, with very heavy rains. The weather mild throughout.

1760. DECEMBER.

The first day rainy. From the 16th to the 20th, fair spring-like weather. Five or six rainy days succeeded, after which it became cooler, and the three last days were clear and frosty.

A P P E N D I X.

cli

1761. DECEMBER.

From the 14th to the 19th, serene and frosty. During the ten succeeding days, much cloudy wet weather, the rain sometimes accompanied with thunder and gusts of wind. The air was temperate to the 29th, when the frost returned. Light easterly breezes predominant all the month.

1762. DECEMBER.

CHAP.
III.

The clear frosty weather continued till the 18th, when it became cloudy. On the 20th it snowed a little, after which the sky became serene, and the frost intense till the 25th. The remainder of the fortnight for the most part cloudy, and a little snow fell.

The winds, as in the month of November, easterly or north-east, and seldom fresh.

A P P E N D I X.

C H A P. IV.

Comparative View of the Seasons at Aleppo, in Six Pestilential Years.

Though I have not been able, from a comparifon of the feafons of different years, to deduce any fatisfactory inference refpe<ting their influence on the propagation of the plague; others, more converfant with meteorological fubjects, may perhaps be more fuccefsful. For this reafon, to the account of the weather already given, I fhall here add a compendious view of the four feafons, in fix plague years at Aleppo, difpofed in fuch a manner that their correpondence, or their variation in the refpective years, may be examined comparatively, with lefs trouble.

S P R I N G.

1742.	1743.	1744.
Dry, and rather warm.	Wet, and for the moft part cool.	Dry and warm, afterwards wet.
Towards the latter part very warm.	After the 10th of March a great deal of rain, and about the 14th (3d old ftile) fome fnow. There was fome hazy weather in the middle of April, but in the beginning and end of that month, and in the firft fortnight of May, a great number of thunder fhowers.	The weather in March variable, warm, and fometimes hazy; very little rain. From the 10th of April to the 10th of May, a good deal of rain and cool weather.
Rainy Days.	Rainy Days.	Rainy Days.
March	March 6	March 4
April	April 7	April 5
May.	May 6	May 7
	Eclipse of the Moon.	April 28th, three fhocks of an Earthquake.

S U M M E R.

A P P E N D I X.

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CHAP.
IV.

S P R I N G.

1760.

Wet in an extraordinary degree, and cold.

Less than usually close, hazy weather.

Rainy Days *.

March	18	33
April	9	11
May	8	6
		<hr/>
		50

1761.

Wet.

The weather, at first temperate, became remarkably cold and wintry about the middle of March, and continued so till the 11th of April. After some clear, warm days. The weather variable, and sometimes hazy. Some showers of hail and rain towards the end.

Rainy Days.

March	14	25
April	9	11
May	2	2
		<hr/>
		38

1762.

Moderately wet, and rather cool.

Much cloudy weather, and the east or west winds were often remarkably high in the night.

Rainy Days.

March	11	17
April	6	9
May	5	5
		<hr/>
		31

* The small figures, in the first column, denote the number of rainy days in the respective months; those, in the second, the quantity of rain that fell.

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SUMMER.

S U M M E R.

1742.

The first fortnight of summer warm. The whole of June rendered cool by fresh breezes westerly. July to the 20th very hot, with breezes at N. W. The rest of the summer temperately hot, without the hot easterly winds.

Rainy Days.

May
June
July
Aug.

1743.

The first fortnight of summer, warm, light breezes, and hazy weather. June to the 20th, cool, with fresh westerly winds. From that to the second week of July, though it often blew fresh, and some showers fell, the weather was hot. Flying clouds were frequent, and west gales pretty constant after the middle of July, so that the air was rather cool till the middle of August. The rest calm and hot.

Rainy Days.

May 1 June 12th, and
June 1 August 19th,
July 1 Earthquakes.
Aug. 0

1744.

Some rain the beginning of the first fortnight of May, and beginning of June. June was hot, attended with light breezes at N. E., and calms. July was moderately refreshed by western breezes. August was calm and hot, the air sometimes rendered extremely hot by easterly breezes.

Rainy Days.

May 1
June 1
July 0
Aug. 1

AUTUMN.

A P P E N D I X.

clv

CHAP.
IV.

S U M M E R.

1760.

The first summer month was remarkably cloudy and cool, and its beginning, and its latter end, attended by thunder showers; the winds often boisterous. July was moderately refreshed by west winds. August calm and hot, with strong east winds in the second week. It then became more temperate, and some dews fell. The last days of the summer excessively hot.

Rainy Days.

May	2	2
June	1	1
July	0	0
Aug.	0	0

3

1761.

The summer remarkably variable till the end of July; the weather being alternately hot and cold, and often accompanied with east winds, and breezes. There were some thunder showers the end of May, and also in the second week of June. August, on the whole, was cool.

Rainy Days.

May	2	5
June	1	2
July	0	0
Aug.	0	0

7

1762.

The beginning of the summer, variable weather; some rain the 18th of May. From the beginning of June to the 23d of July, unusually cool; the west wind constant. A remarkably rainy, bleak day, in June. Between the 25th and 28th of July, clouds, and some dews. It then became hot, and continued so all August, with calms, light breezes, and a sky often clouded.

Rainy Days.

May	1	2
June	4	5
July	0	0
Aug.	1	2

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A U T U M N

1742.

Dry and warm.

The autumnal rains, fell the first week of October; the second rains, about the 10th of November. The interval, between those two periods, fair and pleasant, as also the latter part of the autumn.

Rainy Days.

Sept. 0
Oct. 1
Nov. 5

1743.

The first autumnal rains fell about the end of September; the second rains in the first week of November. The weather calm and hot till the fall of the second rains; the first having only refreshed the air for a few days. A good deal of rain in November. The latter part of the autumn fair and frosty.

Rainy Days.

Sept. 2
Oct. 9
Nov. 9

1744.

A shower of rain, in the second week of September, cooled the air for a few days, and the first rains fell about the 15th. But the weather continued for the most part hot, till the end of the month, when a more sensible change took place, in consequence of showers which fell about that time. The second rains fell the latter end of October. November was less rainy than usual.

Rainy Days.

Sept. 3
Oct. 5
Nov. 3

WINTER.

A P P E N D I X.

clvii

A U T U M N.

CHAP.
IV.

1760.

The autumn wet, and moderately warm till November, which was cold and rainy.

The first rains fell in the third week of September, but refreshed the air only for a few days. There was a thunder shower the 17th of October; after which, it was calm, and hotter than usual.

Rainy Days.

Sept.	2	1
Oct.	1	2
Nov.	14	27
		<hr/>
		30

1761.

The autumn moderately wet, and temperately warm.

The first rain fell the 2d September, and the weather was rather cool till the middle of the month; after which, it was variably hot and cool, till the 5th of October. October was hot; no more rain fell after the 5th. The first ten and the last five days of November cloudy and showery; but the weather was not cold.

Rainy Days.

Sept.	1	3
Oct.	5	1
Nov.	8	14
		<hr/>
		18

1762.

The autumn remarkably dry and warm.

A small shower, the 6th of September, without refreshing the air. On the 29th, a stormy shower rendered the weather cool for a few days, but it again became warm, till the second rains, which fell the 26th of October. November, was temperate and pleasant, with little rain.

Rainy Days.

Sept.	2	2
Oct.	1	2
Nov.	4	6
		<hr/>
		10

WINTER.

W I N T E R.

1742.	1743.	1744.
Frosty and wet.	Moderately frosty, and wet.	Wet, with very little frost.
The weather fair and pleasant till Christmas, when a frost set in which continued near a month. A good deal of snow fell about the middle of January. The remainder of the winter for the most part cloudy and rainy, and there was some snow and hail so late even as the third week of February.	The weather cloudy and rainy, till the 10th of January, the rest of that month, hard frost, attended with four remarkable snowy days. February for the most part rainy and variable, with only a few frosty days intervening.	There were a few frosty days, with some snow, in January, but the greatest part of that month, as well as December, were constantly rainy. February, clear and temperate weather, with very little rain.
<div>Rainy Days.</div> <div>Snowy Days.</div> <div>Dec. 0 11 5</div> <div>Jan. 4 1 2</div> <div>Feb. 14 </div> <div>Dec. 14th Earthquake.</div>	<div>Rainy Days.</div> <div>Snowy Days.</div> <div>Dec. 8 0</div> <div>Jan. 5 IV 8</div> <div>Feb. 9 0</div>	<div>Rainy Days.</div> <div>Snowy Days.</div> <div>Dec. 19 0</div> <div>Jan. 12 2 5</div> <div>Feb. 7 0</div>

A P P E N D I X.

clix

CHAP.
IV.

W I N T E R.

1760.

The winter severe, being alternately wet and frosty.

The frost began earlier than usual, and in January some snow fell; but in February an uncommon quantity. The latter part of the winter pleasant, and vernal.

Rainy Days.	Snowy Days.
Dec. 12 27	0
Jan. 20 23	IV } 11
Feb. 5 14	IV }
64	

1761.

The winter extraordinarily wet.

The frost and snow moderate, but the frost begun earlier and lingered to the second fortnight of February. The last days of the season, variable, spring weather.

Rainy Days.	Snowy Days.
Dec. 13 29	II 1 } 7
Jan. 8 21	II 6 }
Feb. 18 36	0
86	

1762.

The winter extraordinarily frosty, with a good deal of snow; very moderately wet.

From the second week of December, to the second week in February, (a few short intervals of rainy weather excepted) for the most part frosty, moderate at first, but towards the end pretty intense. The last fortnight of the winter, the air temperate, but the spring backward.

Rainy Days.	Snowy Days.
Dec. 5 12	II } 9
Jan. 8 16	IV }
Feb. 5 6	0
34	

F I N I S.

